McCARTNEY LIBRARY
GENEVA COLLEGE
M14760

GATC develops a fast-loa
**transfer unit** for handl
containers . . . . . .

April 6, 1964

# RAILWAY AGE WEEKLY

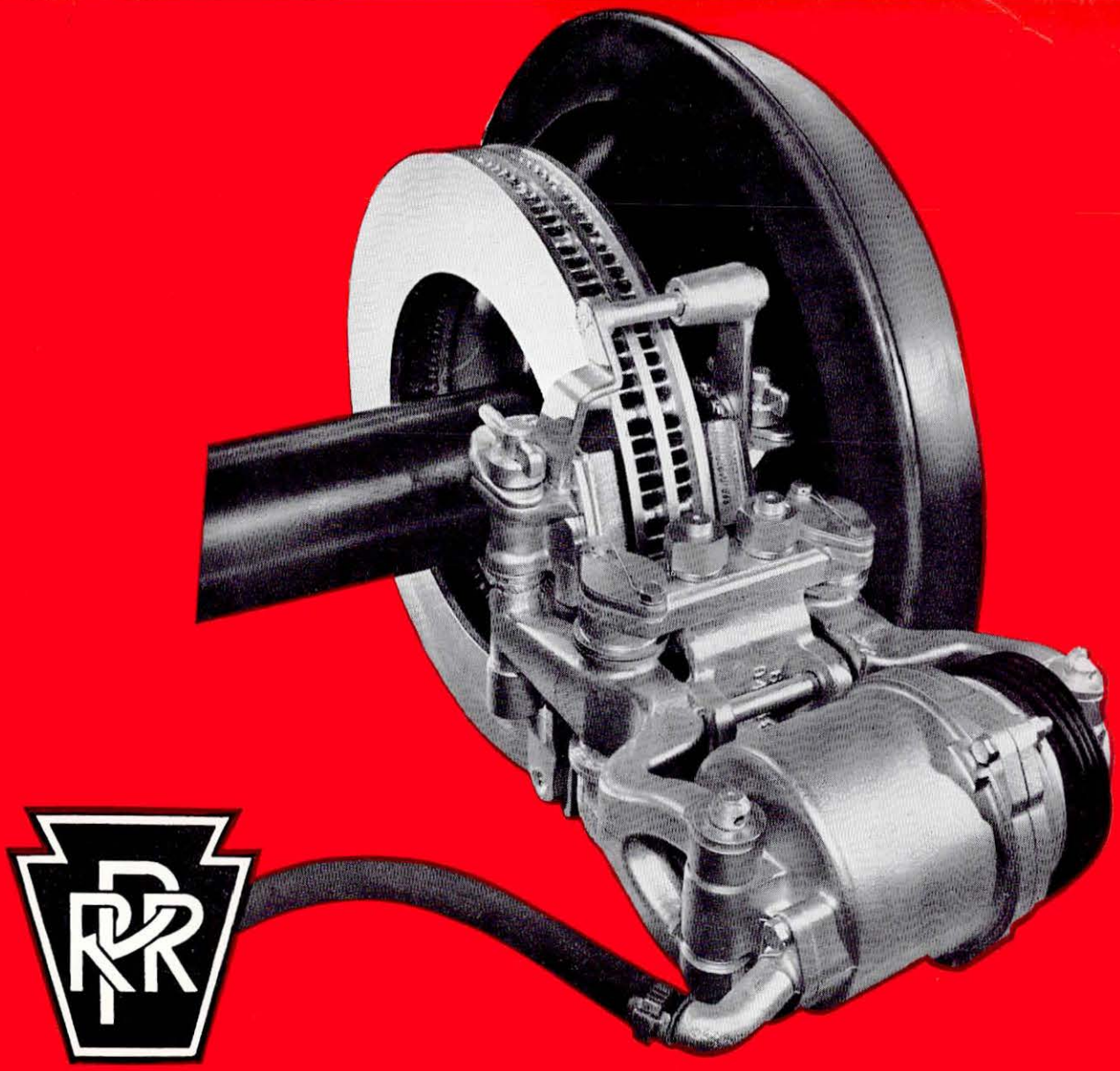
Commuter/transit cars

## NEW DEMANDS SHAPE NEW DESIGNS p. 14

Los Angeles

## FINDING A WAY TO PAY FOR RAILS p. 18

RD64
1116
MC CARTNEY LIBRARY
GENEVA COLLEGE
BEAVER



# WILL SAVE $73,565 EVERY YEAR

. . . by converting 50 additional coaches to Budd Disc Brakes. This reduced operating cost is based on PRR experience with the 10 disc-braked coaches now in their New York—Washington service.

The cost study made jointly by the Pennsylvania Railroad and The Budd Company shows that the Railroad will get this $73,565.00 reduction in operating costs through:

1. increased wheel life
2. increased brake shoe life
3. reduced brake rigging maintenance

These savings represent a 27.4% annual return on their investment and are typical of the record of Budd Disc Brakes now in use on more than 3,000 passenger cars on 54 railroads.

In addition, the Pennsylvania Railroad found that Budd Disc Brakes:

4. will provide smoother stops, particularly in emergency applications at slow speed.
5. will provide silent stops.
6. completely eliminate thermal-cracked wheels.

Want to learn how you can save with Budd Disc Brakes? Write or call us!

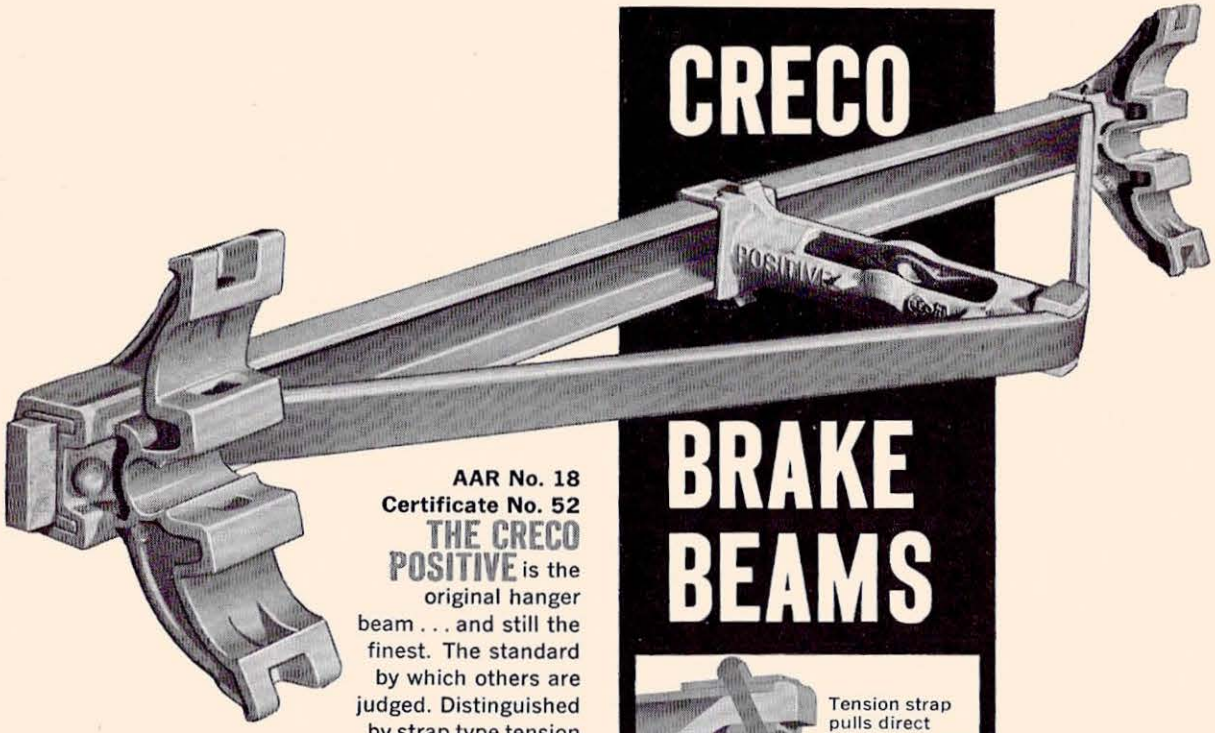
RAILWAY Budd DIVISION

THE BUDD COMPANY, Philadelphia 15, Pa. NEW YORK • CHICAGO • SAN FRANCISCO • WASHINGTON, D. C.

# there is no finer testimonial than...

**"AN OVERWHELMING MAJORITY OF SALES TO EVERY RAILROAD IN THE UNITED STATES, CANADA AND MEXICO!"**

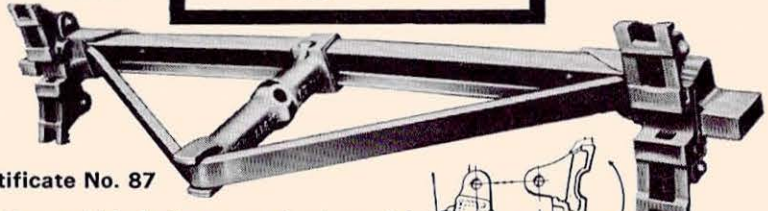
# there is no finer testimonial for...



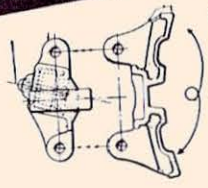

**AAR No. 18**
**Certificate No. 52**

**THE CRECO POSITIVE** is the original hanger beam . . . and still the finest. The standard by which others are judged. Distinguished by strap type tension member and absence of threaded rod and nuts. **All Parts Renewable.**

Tension strap pulls direct on compression member at inter-locking point.



**AAR Certificate No. 87**



**THE CRECO UNIT** **Hangerless Type Brake Beam**—This is the same fundamental design as the CRECO POSITIVE. Duplex Head permits maintenance without interfering with compression on tension members. Brake Head is reversible giving double life of the ordinary brake head. The same head is either right or left, allowing one-half the required brake head inventory! **All Parts Renewable.**

## OTHER MONEY-SAVING, TIME-SAVING CRECO PRODUCTS

**DREXEL Brake Beam Safety Support**—Approved for interchange replacement of AAR Standard safety guards. A support AND a guard. REDUCES WEAR on brake heads, hangers and hanger brackets. Very easy to install—no welding, no special tools. Reduces labor, Reduces wear, **Reduces inventory!**

**BIG FACTOR Journal Stop**—The ounce of hot box prevention, worth a pound of cure! Big Factor costs much less to install (1 hour per car-set of 8). No welding, no rivets, no special tools, cannot be installed upside down or backwards. Big Factor, conditionally AAR approved, **Keeps Axle and Box Always in Relation Laterally and Vertically.**

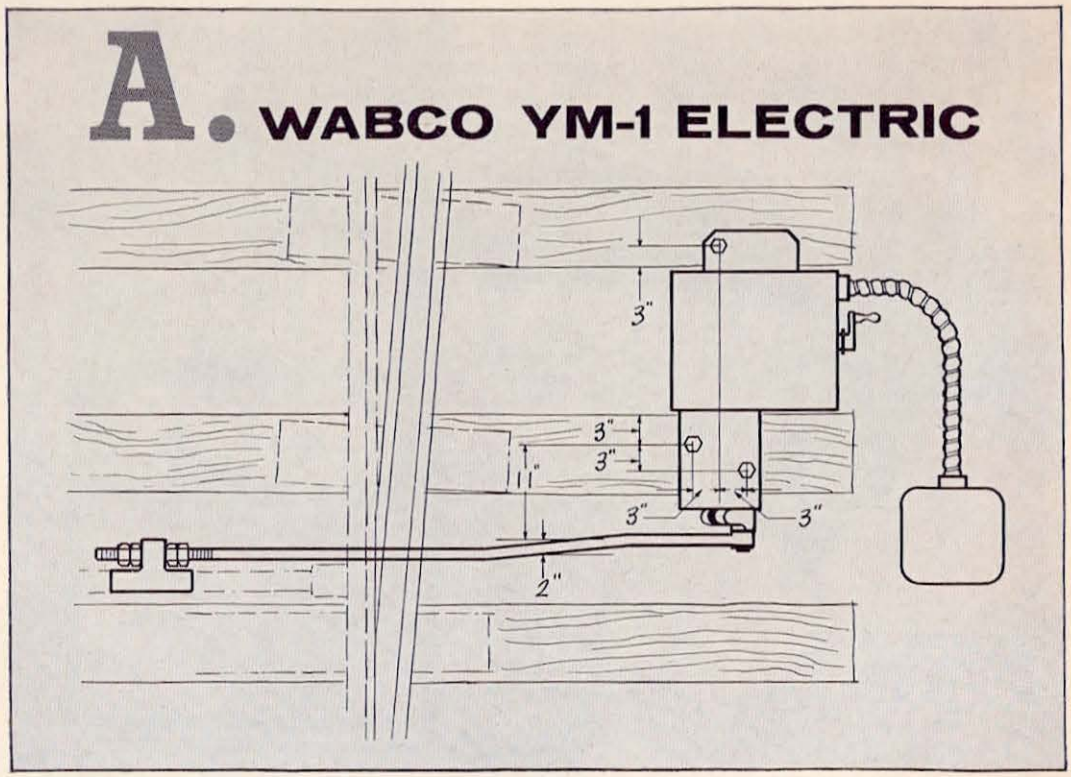
## CHICAGO RAILWAY EQUIPMENT CO.

1928 WEST 46th STREET, CHICAGO 9, ILLINOIS

439R (c-10R)

# Q. What's the most economical, most trouble-free, maintenance-free, safest, trailable yard switch machine on the market?

## A. WABCO YM-1 ELECTRIC




No other electric yard switch machine gives you *all* these advantages. The WABCO YM-1 is simply constructed for a minimum of maintenance and mechanical malfunctions.

One example:
gear and motor are housed in one unit.

The YM-1 is trailable. Price is low and installation is quick, because ties need not be dapped. The YM-1 is safe: when the unit is operated manually, the remote control is automatically disconnected, so the manual operator has complete local control. The YM-1 electric will give years of trouble-free operation: one unit has been operated 3,700 times without malfunction, at temperatures as low as —20°F.

Circuit controller, target, push-button control and indicator lamps are also available. For more information on the WABCO YM-1, write for Union Development 300.

**WABCO** **UNION SWITCH & SIGNAL DIVISION**
Pittsburgh, Pa. 15218 / Westinghouse Air Brake Company

**Editorial Staff**

**• Editorial and Executive Offices**
**New York, N. Y. 10007, 30 Church St.**

JAMES G. LYNE, Editor
ROBERT G. LEWIS, Publisher
LUTHER S. MILLER, Executive Editor

Managing Editor .....Fred C. Miles
Traffic-Transportation .....G. C. Hudson
News Editor .....Edward F. Donlon
Transit Editor .....Joseph Asher
Mechanical
C. L. Combes F. N. Houser, Jr.
Signaling & Communications
Robert W. McKnight
Editorial Director .....George Dusenbury
Art Director .....Joel Petrower
Editorial Assistant .....June Meyer
Director of Research .....J. W. Milliken
Librarian .....Edith C. Stone

**• Chicago, Ill. 60602, 22 W. Madison St.**
JOHN D. MITROS Western Editor
GUS WELTY Senior Editor

Mechanical .....Norman E. Gillespie
Engineering .....M. H. Dick
R. E. Dove E. W. Hodgkins, Jr.
Purchases & Stores .....William V. Tuite
Editorial Assistant .....Wanda Brown

**• Washington, D. C. 20004, National Press Bldg.**
Washington Editor .....Walter J. Taft

**• London, W. 1, England 63/65 Piccadilly**
International Editors
Geoffrey Wilson Paul Goldsack

•

JOE W. KIZZIA, Consulting Editor

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly, except the last week of December, by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn.

Railroad employees' subscription rate: U. S. possessions, Canada and Mexico, $6 one year, $8 two years, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. In other countries, $15 a year. Single copies 60¢ except special issues. Address all subscriptions, changes of address and correspondence concerning them to: Subscription Dept., Railway Age, Emmett St., Bristol, Conn. Change of address should reach us three weeks in advance of next issue date. Send old address with new, enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Circulation Dept.: Robert H. Lash, Director of Circulation, Eugene White, Circulation Manager, 30 Church St., New York 7, N. Y. POSTMASTER—SEND FORM 3579 TO EMMETT ST., BRISTOL, CONN.

Printed at the Wilson H. Lee Co., Orange, Conn. Second-class postage paid at Orange, Conn. and at additional mailing offices.

# RAILWAY AGE WEEK AT A GLANCE

April 6, 1964 • Vol. 156, No. 13

## Showdown on L&N postponed

Hearing on the road's request for an injunction barring an ops' strike is now set for April 22.....**p.11**

## Alaska Railroad hard hit by quake

Damage is conservatively put at $20 million, plus an expected $2 million in shipper claims.....**p.12**

## Commuter/transit cars: New designs

New demands promise dramatic changes in passenger equipment during the next decade.....**p.14**

## Transit legislation likely soon

Sufficient support has been rounded up for the Williams bill to make its backers optimistic.....**p.17**

## Los Angeles: Search for a rail way

A legislative assist is needed before a proposed 64-mile rail transit network can become a reality.....**p.18**

## GATC develops fast-loading transfer unit

High adaptability and low cost, as well as speed, are features of a new side-loader for handling containers .....**p.20**

## New demurrage rules proposed

One goal: to discourage shippers from "using freight cars for storage or warehouse purposes".....**p.26**

## The Action Page—Courts need education

The basic facts of contemporary transport economics could provide needed enlightenment for courts and public .....**p.42**

### Departments

Freight Carloadings ..... 37
Letters from Readers ..... 35
Monday Morning Report ..... 8
New Equipment ..... 37
New Products Report ..... 31
People in the News ..... 33
Railroading After Hours ..... 21
Railway Market ..... 37
Supply Trade ..... 34
The Action Page ..... 42
Watching Washington ..... 12
You Ought to Know..... 38

# MINER RF-361

# A.A.R. M-901E-59

## A bold combination of progress

A.A.R. Specification M-901E-59 states the need. It takes unique design and manufacturing experience to meet and exceed the need. With Miner's RF-361, you get tangible proof why this is the best in a higher capacity, more durable draft gear. Taken together, the A.A.R. Specification requirements and Miner's draft gear (based on research dedication which developed new, revised metallurgy), are a bold combination of progress in draft gear operational features. Field performance has substantiated test successes of the RF-361 in every way.

It takes bold thinking to keep pace with the bold railroad progress of today and tomorrow. With Miner, you can count on the highest performance standards.

**W. H. MINER INC., CHICAGO**

OFFICE OF FOREIGN OPERATIONS
1212 Pennsylvania Bldg. 425 Thirteenth St. N.W.
Washington 4, D.C., U.S.A.

# SHORT AND SIGNIFICANT

**Piggyback sets brisk pace in first quarter**

TOFC continues to occupy the brightest spot in the traffic spectrum. In this year's first 12 weeks, 189,397 cars were loaded with trailers—up 11.1% from the year-ago figure. What's ahead? "There's no limit," Pennsylvania President A. J. Greenough told a St. Louis audience, "as to how far this expert combination of two modes of transportation can go."

●

**What's next for TOFC? Moving motels**

Newest of piggyback's offshoot operations may begin soon on L&N. It's motel-moving—transportation of two-unit, pre-fabricated steel buildings (completely furnished on the inside). A firm in Russellville, Ky., is building the motels. Plans call for L&N to move several hundred units from plant to ocean port, from where they'll be shipped to Bermuda. Specific methods of handling aren't yet certain. They may go piggyback, on flatbed trailers; they may merely be loaded aboard TOFC cars, as mobile homes and pre-fab home sections have been handled by a number of roads.

●

**In Michigan: Railroads win big, trucks win bigger**

Michigan's "full-crew" bill (RA, March 2, p. 10) was defeated in the state Senate despite a late flurry of support. But the same Senate on March 25 dealt the railroads a blow indirectly by passing the "long truck" bill (RA, Feb. 10, p. 33). Railroad observers are pessimistic that the bill will be defeated in the House.

●

**Special court needed for transport labor disputes?**

Anthony F. Arpaia, former chairman of the ICC, thinks there's a better way to settle transportation labor disputes than "trial by combat." Mr. Arpaia (now vice president, international services, REA Express) proposes creation of an independent transportation labor court. Its decisions would be binding for a temporary period—"say, two years." If sore spots remained at the end of that period, then "the whole matter could be again reviewed in the light of the experience gained."

●

**Tight clearance seen for transport bill**

The vote will be close, but the House Rules Committee is expected this week to clear H.R. 9903, the controversial transportation bill for consideration by the House. The bill, supported by the railroads, is the House Interstate Commerce Committee's response to the late President Kennedy's Transportation Message of April 5, 1962.

●

**Walrath confirmed for new term on Commission**

The Senate has confirmed President Johnson's reappointment of Commissioner Laurence K. Walrath for a new seven-year term on the ICC. Mr. Walrath has been a member of the Commission since 1956.

●

**More railroad coordination south of the border**

A meeting of Latin-American railway presidents was called March 25-27 in Argentina to lay the groundwork for organization of the Asociacion Latino-Americana de Ferrocariles (ALAF). Immediate goals: exchange of overhaul services for traction equipment; promotion of connecting international lines; creation of an Amerail-Pass similar to Europe's Eurail-Pass.

# MONDAY MORNING REPORT

**Do you need new power?**

Most locomotives are old. New road power is needed to speed traffic, reduce maintenance, increase utilization. What do you buy? Fortunately, the railroads have a greater selection this year than at any time since the diesel replaced steam.

●

**All kinds of "sugar plums" for the mainline**

Railroaders' heads are so full of such "sugar plums" as the GP-35, U25B, Century 424, DD-35, and Krauss-Maffei (so Rock Island's operating vice president, O. W. Limestall, said recently) that they forget about yard power. But yard power, of course, is not going to be neglected although most roads surely will concentrate on new power for mainline traffic.

Mr. Limestall could have added the GP-28, SD-35, U25C and U50, Century 420, 628, 855 and Hydraulic 643 locomotives to his list. These models, along with the other "sugar plums," offer horsepower and adhesion values producing characteristics to meet the operating conditions of any railroad.

●

**Models match the needs**

For high-speed operations your road may need the flexible workhorse, the four-axle 2,500-horsepower class unit. If better adhesion and more tractive effort for the tough pull on grades is required, the six-axle model could fill the bill and give speed to boot. Consideration could even be given to the high adhesion values and speed delivered by the diesel-hydraulics. If speed is not an important factor, the 1,800- and 2,000-horsepower diesel-electrics may be ideal for your road's operations.

●

**Big unit-reducing blocks**

Then if your line is thinking about making a significant reduction in the motive power inventory, your road may want, as the Union Pacific does, 5,000 or more horsepower in single units. Three of these can produce the 15,000 horsepower that the UP says it needs for its long-haul, high-speed freight operations. The arithmetic is simple. The three can replace ten 1,500-horsepower units, at least seven 2,000-horsepower units, or six 2,500-horsepower units.

●

**A look at what's ahead**

New motive-power developments are in the wind. Some are concerned with prime movers other than the diesel engine, including gas-turbine, straight-electric, fuel-cell, and nuclear power. Most deal with making the diesel-electric locomotive a better machine, electrically and mechanically.

●

**Current designs are good**

The diesel-electric is firmly entrenched as the primary motive power unit. The outlook is excellent that this position will be maintained in the immediate future. It's possible that your road can wait on developments before starting a major replacement program. But today's models are good. High operating and maintenance cost of present power is a key factor in making a decision. Stepped-up schedules may require the performance levels reached by the new power now.

*An array of Shell railroad products at a typical supply depot.*

# Shell supplies railroads from more than 1350 depots. Here are just ten of the products and services you can get:

## *(many are free)*

**1.** Shell has *eight* specially trained railroad engineers ready to help you. Over the years they have been helping railroads solve lubrication, fuel and other problems—mostly on the spot.

**2.** If the problem is really tough, Shell scientists are called in, and the problem goes into one of Shell's research laboratories.

**3.** Forty-seven major Shell Terminals are ready to supply you with the complete line of Shell railroad products. And Shell products are available at more than 1350 smaller supply points.

**4.** Shell's railroad lubricating oils include famous Shell Talona® RS, the premium diesel-engine oil with a long history of excellent performance.

**5.** Shell markets an array of the finest railroad greases. For example, Shell's premium Cyprina® grease is recommended for long-time operation in traction motors, generators, fans, fuel pumps.

**6.** Shell Dieseline® fuel has high heat content for power and economy.

**7.** Shell offers three superior lubricants for your trucks and maintenance-of-way equipment: Rotella® T engine oil, Darina® AX multi-purpose grease, and Spirax® multi-purpose gear oil.

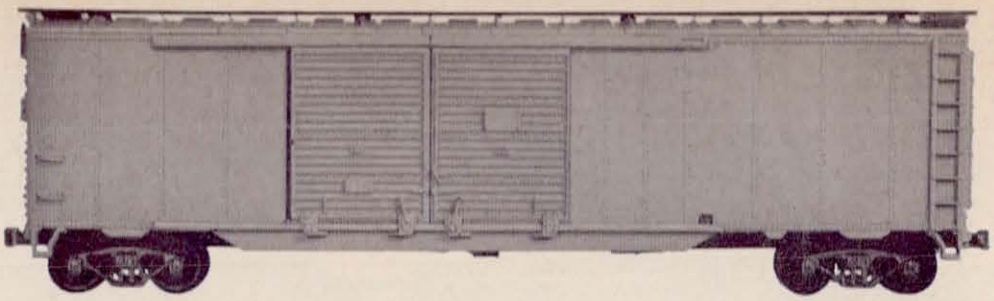
**8.** A complete range of special Shell products is available for *preventing rust*—in car journal boxes, wrapped spare parts, metal exposed outdoors. Shell's low-cost Track Oil Preservative can reduce track replacement.

**9.** Shell Weed-Killing Oils are effective, inexpensive and easy to handle.

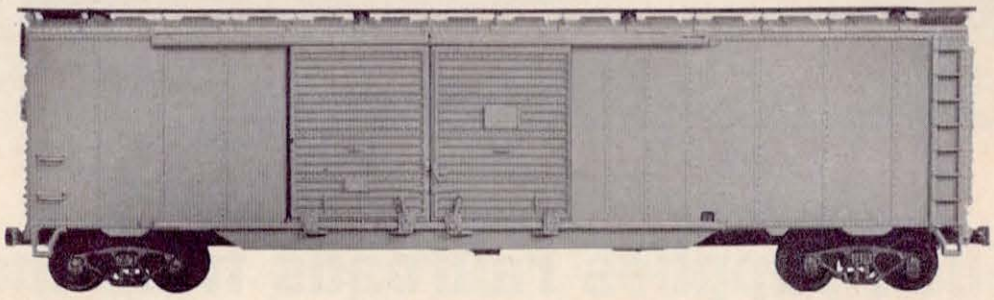
**10.** Shell credit cards can be used for all your automotive needs: gasoline, lubrication, service.

Write for a free booklet LF-63-2: "6 ways how Shell fuels, lubricants and services help you get top fleet performance," to Shell Oil Company, Railroad Department, 50 West 50th Street, New York 20, New York.

SHELL

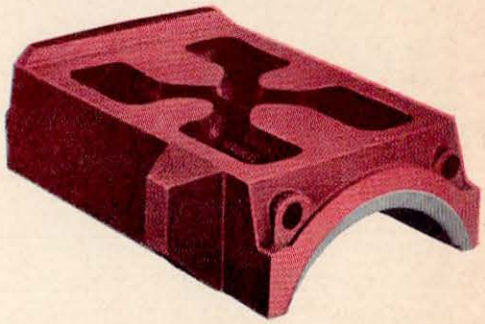


## This car goes 1,000,000 miles per hot box setout



## This car goes over 2,000,000 miles per hot box setout

### this is the only difference



It's a Magnus Flat-Back Bearing. A carset can give you more than a million extra miles per setout. That's double the performance with conventional solid bearings.

Magnus Flat-Backs now get better than 2 million miles per setout. That's equal to one hot box for the life of four cars—*one per 120 car years.*

Compared with roller bearings, Magnus Flat-Backs can save you an average of $700,000 on a purchase of 1,000 cars. They save you even more on high-capacity cars. The price difference is enough to provide up to 8% more hauling capacity for the same initial investment.

Want detailed information about Magnus Flat-Backs—and how best to stabilize journals for maximum performance? Write to Magnus Metal Corporation, 111 Broadway, New York 6—or 80 E. Jackson Blvd., Chicago 4.

**MAGNUS METAL CORPORATION**
*Subsidiary of* **NATIONAL LEAD COMPANY**

# Work rules: showdown on L&N postponed

**April 22 is the new date for a court hearing on the road's bid for a permanent injunction to forestall a threatened strike by the operating brotherhoods.**

The setting was different but the cast was much the same last week as railroads and unions played out another scene in the continuing courtroom drama entitled "work rules."

This was a short scene. Only 35 minutes ticked away from start to anticlimactic finish. And the top-drawer "actors" in the drama were left without lines.

The setting was U. S. District Court in Louisville, Ky. Supposedly, there was to be a hearing before Judge Henry L. Brooks on Louisville & Nashville's bid for a permanent injunction barring a strike by four operating brotherhoods. But the action never started.

● **Timetable trouble.** Instead, a crowded courtroom saw only a sparring match between lawyers—and the upshot was a postponement of the hearing until April 22.

Judge Brooks, as it happened, had only one day—March 30—available to hear the case last week. Robert P. Hobson, Louisville attorney representing L&N, said he could present the railroad's case in a day. But Charles I. Dawson, a former judge retained to represent the unions, reckoned it would take him about four days.

● **Crowded docket.** Judge Brooks, seeming a bit taken aback, pondered the situation, reviewed his crowded docket and suggested a continuance to June 1. After a recess, for consultations, Mr. Dawson pressed for an earlier hearing; L&N's attorney OK'd the June 1 suggestion.

Judge Brooks finally located four days on the calendar on which he could hear the dispute—and, with no agreement forthcoming from opposing lawyers, the judge arbitrarily scheduled the case for April 22.

● **What ops want.** At the heart of the issue is the bid by the four unions—Engineers, Firemen, Trainmen and Conductors—to force L&N into local-level negotiation of the so-called "secondary" points in the work-rules case. But the atmosphere in the courtroom hardly bore out the "local" bit. Grand lodge vice presidents of at least three of the organizations were on hand; so were J. E. Wolfe, chairman of the National Railway Labor Conference, and Howard Neitzert, longtime legal spokesman for the carriers in national negotiations.

## Familiar opponents

The ops' contingent—vice presidents, general chairman, lawyers—arrived on the scene first, and in force. The first wave from management's side came later—to be greeted with a jovial "Hey, Doc, what brings you to Louisville?" from one of the union vice presidents, as Mr. Wolfe came into view.

● **Corridor conversations.** Some of the ops' officers' talk before court revealed a mixture of attitudes—ranging from determination to a kind of resignation based, perhaps, on the long struggle in and out of various courts.

(One union representative, reviewing the series of debates involving a presidential commission, an emergency board, Congress and the courts, had one glum comment: "This must be the longest-lasting floating crap game in the country.")

● **No one satisfied.** The quick breakoff of the court "hearing" in Louisville didn't seem to leave anybody especially happy. Said one union VP, with a sad shake of his head: "I just knew somehow we wouldn't get the briefcases open."

Postponement of the L&N showdown also turned the spotlight—at least temporarily—to the Pacific Coast, where the unions are trying to prod Southern Pacific into local rules talks.

● **SP-op hearing set.** SP, acting to head off a possible strike, had obtained a state-court order restraining the unions. But the ops went to U. S. District Court, asked the court to assume jurisdiction and got the requested transfer. Next step was to be a federal-court hearing, set for April 3.

Regardless of the outcome of the hearings, an appeal appears likely. The ops have indicated rather strongly that they'll carry the fight higher. The carriers could be expected to do likewise—though some union opinion holds an opposite view. Timing could be a factor. If the restraining order barring a strike against L&N should be dissolved after the April 22 hearing, for example, L&N might be faced with a labor crisis with its biggest passenger-operation day of the year—Kentucky Derby day—just a short time off.

● **Meanwhile, some progress.** While the work-rules case kept running without visible signs that the parties are coming closer together, the carrier and two of the unions did arrive at one important agreement via the collective bargaining route. The nation's railroads and the Trainmen and Conductors signed a pact providing health and welfare benefits at a cost, to the carriers, of $23 per employee per month. ■

## WATCHING WASHINGTON WITH WALTER TAFT

TAFT

• **THE ICC'S POLICY** of rotating its chairmanship annually is still opposed by at least one of its members—Commissioner William H. Tucker. Mr. Tucker reiterated his previously-expressed opposition to the policy in a recent lecture at Princeton University. This Tucker view is in line with recommendations made to the late President Kennedy in 1961 in the so-called Landis report. That report was made by James M. Landis, New York attorney and former dean of Harvard Law School, who served in New Deal days on two federal regulatory agencies—the Securities and Exchange Commission and the Civil Aeronautics Board. Commissioner Tucker is one of Mr. Kennedy's appointees to the ICC. He comes from the late President's home state of Massachusetts.

**THE LANDIS REPORT** recommended more Presidential attention to regulatory agencies, including the ICC. Its specific recommendations as to the Commission included a call for Presidential appointment of the Commission's chairman, who would serve in the chairmanship at the pleasure of the President. That is the present situation as to chairmanships of other independent agencies, including the Civil Aeronautics Board. CAB regulates air carriers.

**THE ANNUAL ROTATION POLICY** at the ICC gives the chairmanship each year to the commissioner with greatest seniority among those who have never held the job. If all members thus get a turn, a round of second terms gets under way. Six of the 11 commissioners now serving have held the chairmanship. The present chairman is Commissioner Abe McGregor Goff. The vice-chairman is Commissioner Charles A. Webb who will become chairman for 1965.

**COMMISSIONER TUCKER'S SUPPORT** of a longer term for the chairmanship is based principally upon his view that it would be good management technique. He argues that planning and policy are more fruitful when leadership does not undergo frequent change.

**THE COMMISSIONER DOES CONCEDE,** however, that the Commission's Policy and Planning Committee might backstop the annual change in the chairmanship. That committee, consisting of three commissioners, was established about a year ago. It could be "the key to some advances in policy planning and continuity," Mr. Tucker says, adding that it's still too early to tell.

**TWENTY-FIVE YEARS AGO,** the Commission did suspend its chairmanship-rotation policy. The suspension was part of a Commission undertaking to improve its image to the New Dealers. It was then an open secret in Washington that important members of the late President Roosevelt's Administration regarded the Commission as a body going to seed amidst the flowering of the newer alphabetical agencies.

**A THREE-YEAR CHAIRMANSHIP** was established in mid-1939, and the late Commissioner Joseph B. Eastman was elected for that term. The new set-up lasted 2½ years. Though he remained a member of the Commission, Mr. Eastman relinquished the chairmanship at the end of 1941, when he became director of the wartime Office of Defense Transportation. The late Commissioner Clyde B. Aitchison served as acting chairman for the remaining six months of the Eastman term, and as chairman until the end of 1942. The annual rotation plan was then reinstated, and it has been followed since without interruption.

# Alaska RR hard hit by quake

Direct damage to the government-owned Alaska Railroad as a result of the March 27 earthquake is now very conservatively estimated at $20 million. It may go somewhat higher. In addition, the carrier anticipates claims for at least $2 million because of the total destruction of 50 loaded freight cars.

Most of the damage, according to E. M. Fitch, assistant to the general manager at Washington, D.C., resulted from tidal waves or fires which followed the quake, rather than from the quake itself.

• **Port damage high.** Most of the damage was concentrated at Seward and Whittier, and on the rail line adjacent to Turnagain Arm, a branch of Cook Inlet near Anchorage.

At Seward, the "whole blooming railroad" virtually disappeared—including a relatively new two-berth dock, some recently installed cranes valued at $250,000, and yards and trackage. Much of the damage, especially that to yard and track, resulted from the burning of burst oil storage tanks. At Whittier, the ARR lost the slip by which cars are transferred between its own rails and Canadian National car barges.

Rolling stock losses, in addition to the 50 loaded cars, included some empty cars and two locomotives. Casualties among railway personnel were limited to one man, at Seward, whose death is attributed to heart attack.

On the favorable side, the railroad's headquarters and shop buildings at Anchorage were not seriously damaged.

• **Back to work.** First task in restoring full normal operation is to "get a port." Hence, reconstruction is presently being concentrated on Whittier and Seward. The former, it is expected, will be quickly restored, but work at Seward may take up to six weeks. With help from military earth-moving equipment, damage to track along Turnagain Arm and at some other locations is also scheduled for early repair.

There has been no interruption of operations on the north end of the line, between Fairbanks and Healy (112 miles). Resumption of full (though not necessarily normal) service over the 244 miles between Anchorage and Healy is expected to take about three weeks. ■

**com-mut'er car (kŏ-mūt ẽr kär), n. high capacity, low-cost operation, top speed between stations, optimum acceleration, comfortable, simplified design, safe, efficient, easily maintained, and built by car-building experts with over 75 years' experience in design and manufacture. This defines the best in commuter cars—a vital part of coordinated transportation that provides frequent service to metropolitan areas. Let us tell you more. Write to St. Louis Car.** *St. Louis Car, 8000 Hall St., St. Louis, Mo.*

**ST. LOUIS CAR**

a division of GENERAL STEEL INDUSTRIES

GSI

COMMUTER/TRANSIT CARS

# New demands, new designs

**As experts predict a boom in passenger-carrying equipment, carbuilders, plus some newcomers, are working on advanced designs.**

Car manufacturers at home and abroad are speeding up engineering work on their transit/commuter offerings—and nervously looking over their shoulders.

Some non-carbuilding companies are getting interested because breakthroughs in plastics, metals and electronics—on the eve of what many experts feel is a boom for passenger-carrying equipment—will almost certainly transform equipment rolling off builders' assembly lines in the decade ahead.

● **Non-builder trend?** Illinois Central's experience is a case in point. IC's over-age but well-maintained fleet of 280 electric suburban cars has drawn proposals from builders like Pullman-Standard, St. Louis Car and Budd in recent months. But recently IC's equipment committee has been looking at an advanced design for lightweight equipment that can be used interchangeably in commuter and through-passenger service. The proposal was not from one of the three U.S. carbuilders still producing passenger equipment—or even from one of the dozen or so firms in Europe and Asia still in the business. It was from the Reynolds Metals Co. (See box on facing page.)

Another straw in the wind came on April 5 when thousands of New York Times readers saw an artist's rendering of General Electric's concept of a superregion rapid-transit train that could be engineered to serve the Boston-New York-Washington, D.C., population corridor at 135-mph speeds.

● **Overseas competition.** Another case illustrating the spread of industrial interest in such equipment came north of the border on March 12, when the Toronto Transit Commission awarded Hawker Siddeley Canada, Ltd., a $16,394,922 contract to build 164 of that firm's "long" subway cars at its Canadian Car Division Dominion plant. Hawker Siddeley's low bid won out over bids from Montreal Locomotive Works, Ltd., Marubeni-Iida Co., of Japan, and Deutsche Wagon und Maschinenfabriken in Germany.

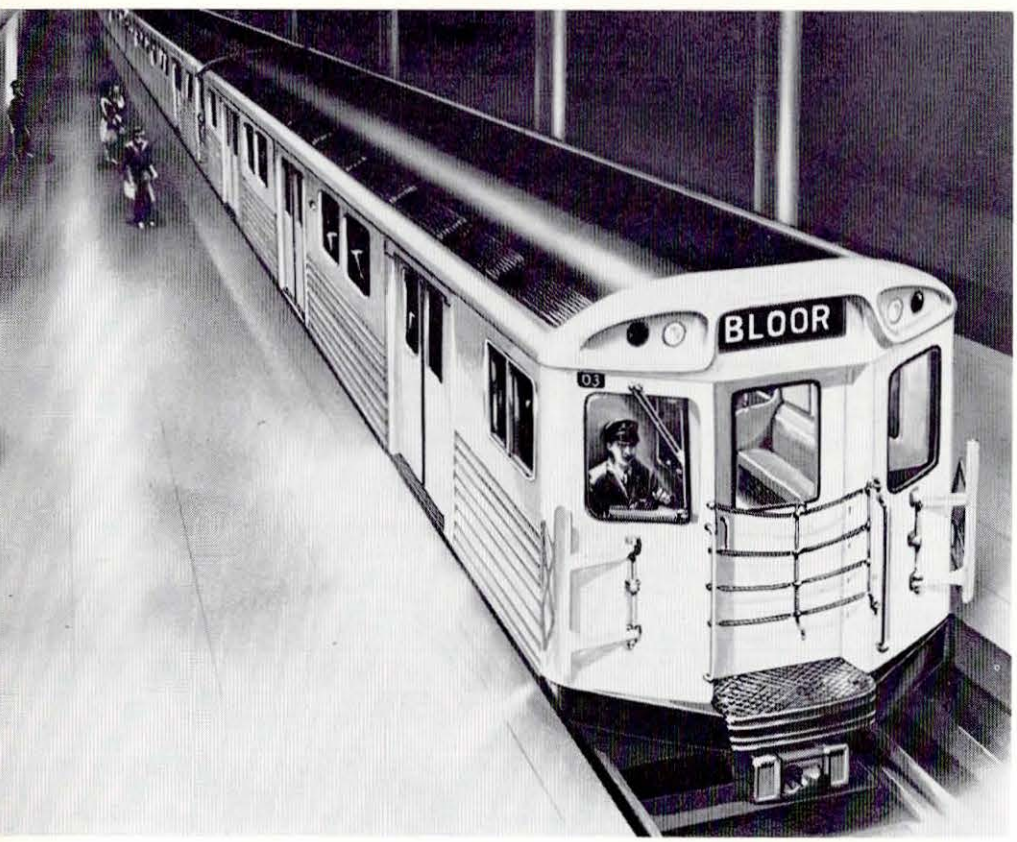
Dow Chemical, General Electric, Westinghouse Electric, Alcoa, Kaiser Aluminum, Convair, and a growing list of other firms in the U.S. are deep in market research and planning aimed straight at participation in the multi-billion dollar market for rail transit hardware that some experts are predicting for the next decade.

While few have gone to the extent of Reynolds—with a specific proposal for replacing existing equipment—many are working cooperatively with established builders. A wide array of improvements ranging from gas turbine power to basic metal components and air conditioning equipment showing up in builders' proposals in the months ahead may reflect this. Notes Edward J. McVeigh, manager of merchandising for Dow Chemical's Metals Products Company: "As a supplier of wrought aluminum alloys we have a great interest in the railroad industry. This interest is being manifested in a program that includes cooperative development projects, technical assistance and detailed financial studies to determine economic merit.

"Since car builders and railroads are most knowledgeable on equipment and end use, we work through them, assisting as needed, on design and fabrication information as it applies to aluminum." Reynolds, too, if its design is approved, would turn it over to established builders for production.

Several other firms not heretofore in the passenger-carbuilding business — from Westinghouse to U.S. Steel — have gone quite a bit further in testing materials, equipment and concepts that could, conceivably, give them a toehold in the expanding market for rail transit hardware ahead.

● **CanCar's TTC car.** Hawker Siddeley President T. J. Emmert describes development work on the TTC cars as dating back all the way to 1958, "when CanCar was the first firm to envisage the longer subway cars now in use." Engineering investment in development came to $60,000.




Hawker Siddeley design which was bought by the Toronto Transit Commission.

## Commuter/through-passenger trains ahead?

Traditional distinctions between commuter and through-passenger trains may diminish soon.

Pullman-Standard several years ago engineered and produced double-deckers for Chicago & North Western's through-passenger service that can be used in C&NW suburban service.

Now Reynolds Metals Co. has come up with a proposal for equipment that it says can serve as an efficient commuter train—and also serve as an intercity train. And make money in both services.

Reynolds' concept of a train tailored to today's commuter realities, complete with drawings, specifications and eye-opening possibilities, has been in the hands of the Illinois Central's equipment committee for consideration as a candidate to replace that road's aging but well-maintained fleet of 280 green and gold electric commuter cars.

The Reynolds TMT-9 is a lightweight, articulated turbo-electric motor train. Consisting of nine units that have to be operated as one train, the TMT-9 has a power section and elevated cab at each end (which occupies 28 feet of space in the unit) plus seven intermediate car units each 53½ feet long. About 510 feet long, 10½ feet wide and 11 feet high—except for the cabs which are 13 feet high—the train's lightweight is 350,000 pounds. All 12 of the TMT-9's axles are powered and dynamically braked by standard subway-type traction motors. The engines are Pratt & Whitney de-rated aircraft gas turbines which drive high speed generators to provide electric power. Provision is made for turbine shutdown and direct operation from 600-volt, direct-current third rails.

The TMT-9, says Reynolds, is designed to meet all applicable strength specifications and to exceed 800,000-pound buff requirements. The ends of the TMT-9 are to be fitted with type-H tightlock couplers for MU operation or for use in emergencies to pull or be pulled by standard equipment.

IC's equipment committee—which is also considering plans and developments from P-S, St. Louis Car and Budd—is under no pressure to make any sort of decision to replace its 1926 suburban equipment. Says Equipment Committee Chairman Wayne A. Johnston, Jr., "Our equipment has been well-maintained and we're in no hurry. We're giving everybody's ideas a hard look."

But, there were some intriguing aspects to the Reynolds' proposal:

The TMT-9's design, says Reynolds, allows fast acceleration, top speeds of more than 100 miles per hour and fast stops. With weight less than half that of conventional equipment, TMT-9 has fuel, maintenance and ownership costs less than half that of conventional equipment of equal capacity.

TMT-9 would reduce railroad break-even factors because of reduced operating costs and would generate more "productivity per dollar invested of any bus, rail or airline equipment to date."

Other features of the TMT-9 of interest to roads operating both commuter and through-passenger trains:

- Reduced turnaround time because of double-ended power and minimum servicing requirements. Fueling is good for 24 hours of running in high-speed service.
- Component maintenance is simplified because all major items whose malfunction would impair TMT-9's utilization are designed for quick change-out and replacement.
- MU operation of the TMT-9 is possible in exactly the same fashion as any suburban MU operation: The second train operates automatically in synchronism with the lead train. Electric and air lines couple automatically. Separation and operation as separate trains can be accomplished quickly.

Reynolds' TMT-9 holds the possibility of commuter use during the week—and through-passenger use on weekends. Reynolds' proposal to IC carried tables and cost studies on operating costs ($3.41 per mile against $4.18 per mile for conventional trains; based on 1,100 mile days for the TMT-9 and 800 mile days for conventional equipment); and on TMT-9 operating in IC's Chicago-St. Louis, Chicago-New Orleans, Chicago-Waterloo schedules.

The kind of figuring (see the accompanying table) that may characterize equipment decisions on railroads (when the long-awaited stabilization of passenger business *vis-à-vis* airline competition arrives) wound up the Reynolds TMT-9 proposal.

### Reynolds' investment comparisons: TMT-9 and jet aircraft

| | TMT-9 | Viscount | B-720 | DC-9 |
|---|---|---|---|---|
| Cost (millions) | $1.5 | $1.0 | $3.5 | $2.5 |
| Daily utilization (miles) | 1000 | 3000 | 5000 | 4000 |
| Seats, revenue | 360 | 46 | 120 | 70 |
| Seat miles/day | 360,000 | 138,000 | 600,000 | 280,000 |
| Seat miles/year (millions) | 126.0 | 48.4 | 210.0 | 98.0 |
| Investment/seat | $4,160 | $21,700 | $29,200 | $35,700 |
| Investment/year/seat/mile | $.00118 | $.0026 | $.00167 | $.00255 |

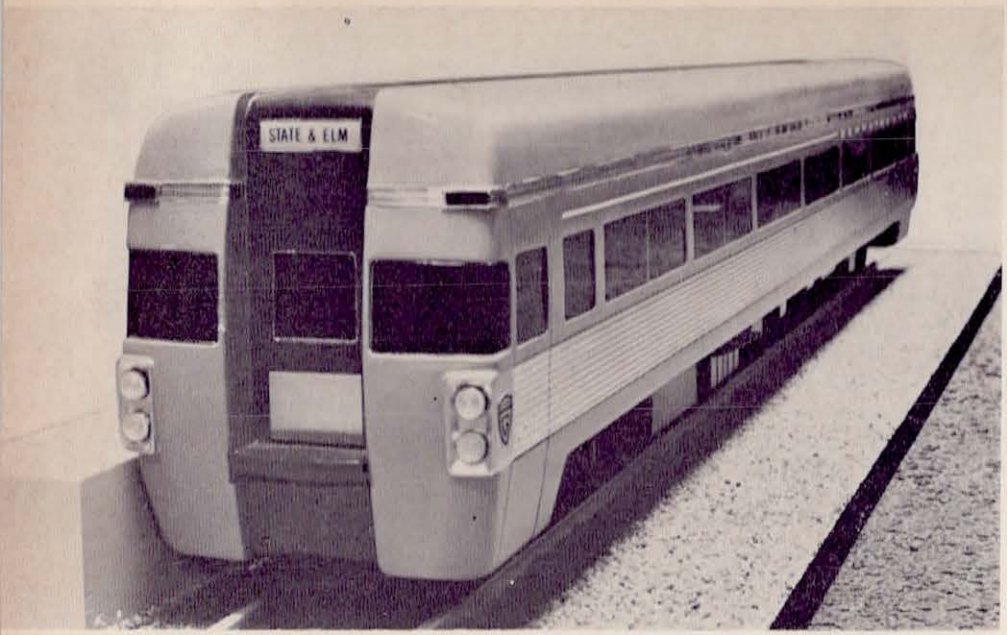
The cars will cost $92,000 each and will be 75 feet long and 10 feet wide. Weighing 60,000 pounds, the cars will be able to carry a maximum load of 300 passengers. Having an initial cost per passenger of $306, Hawker-Siddeley says the cars will cost 19% less to operate and will be 22% cheaper to maintain than conventional equipment.

- **Other features.** The TTC car will have 83 passenger seats, four double doors per side, dynamic braking with standby air brakes, forced air ventilation, fluorescent lighting and an antiglare design for motormen's windows.

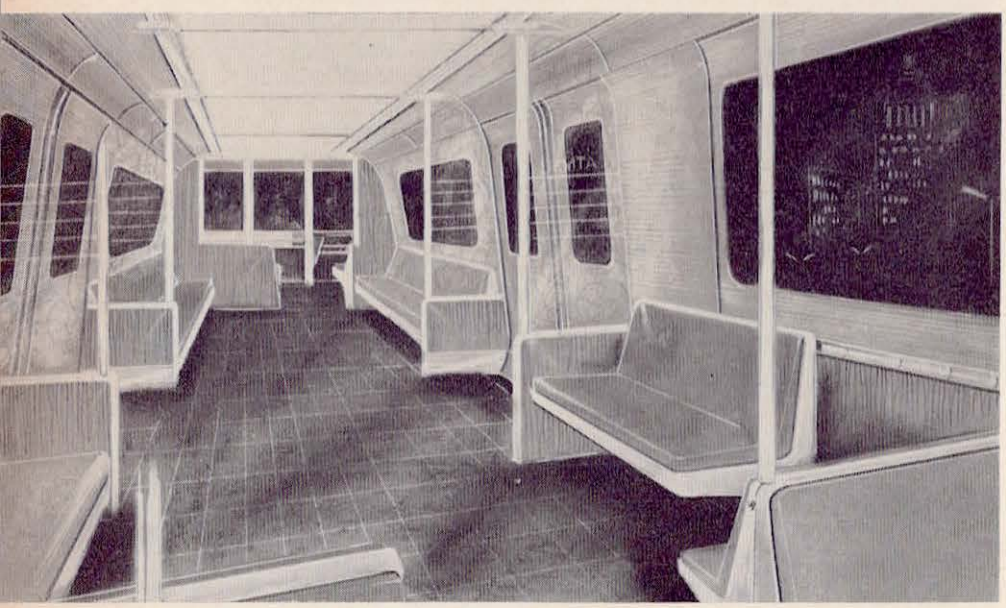
Additionally, the equipment will have communications units that will permit voice transmission between the train and central control, between motorman and guards, from train crew to passengers and from central control to passengers. Delivery of the TTC cars is scheduled to start in May of next year and be completed by the end of 1965.

- **New materials.** All three U.S. passenger carbuilders — Budd, Pullman-Standard and St. Louis Car—are investigating methods, materials and concepts for transit/commuter equipment application that railroad and transit experts of a few decades ago never even heard of.

James Graebner, P-S manager mass transit marketing services, notes: "No material is sacred any more, for any purpose. Steel, stainless steel or aluminum is not necessarily any kind of final answer for equipment. Materials have certain values that changing circum-




St. Louis Car design calls for lightweight, high-performance components.



New metals, plastics are transforming equipment design at Pullman-Standard.

stances can drastically alter.

"We have fiberglass seats on equipment in Boston as well as moulded fiberglass ends on two cars. Materials technology makes it possible to turn on a fire hose inside cars being built today —to clean them. We are experiencing great design changes in equipment as usage moves toward equipment that will be economically useful in situations between high-density commuter and low-density transit use."

● **Lightweights coming.** Commenting on the design tendency toward lightweight transit/commuter equipment, Mr. Graebner said: "Bigger equipment that is lighter has an almost irresistible attraction to engineers—and operators. It is considerably cheaper to operate and, hopefully, to maintain."

For the present, P-S feels that each situation requiring transit and/or commuter equipment has its own unique requirements. "Whatever lightweight answers are ahead will result from materials and technical changes achieved in very recent times," notes Mr. Graebner. "While some lightweight equipment in the last decade or two failed to impress the industry, I have no doubt that some new and lighter equilibrium for equipment is ahead as the market for transit and commuter and even intercity equipment expands."

Mr. Graebner's feeling is underscored by the fact that the average age of U.S. coaches is 30 years—the "edge of obsolescence."

● **St. Louis Car's entry.** Also stressing lightweight equipment was a recently released design study by the St. Louis Car Division of General Steel Industries, Inc. The design envisions lightweight, high-performance elements that can be adapted to a wide variety of carbon steel, low-alloy steel, stainless steel and aluminum building materials —as well as plastics.

St. Louis Car engineers, pointing out that acceleration and adequate speed between stations—as well as riding comfort and ease of maintenance—are important to commuter operation, say: "Improved truck designs and the increasing applications in recent years of low-maintenance exterior and interior finish materials will aid in passenger comfort and convenience."

An improving commuter car market is seen by St. Louis Car as existing systems renew equipment and as rapidly developing urban areas require more and better commuter service.

● **Budd's entry.** With a prototype in Pennsylvania service since 1958, Budd's lightweight commuter cars are backed by considerable experience.

The lightweight cars are 85 feet long and are 30% lighter than conventional cars. Budd says they are less costly to operate, more economical to maintain, can accelerate twice as fast as PRR's former cars and are "fabricated from materials that are nearly indestructible."

Like cars ordered for New York and Chicago transit use, the Budd cars in PRR's Philadelphia commuter service are air-conditioned. Cushions are made from polyether foam and are covered with plastic fabric. Budd, in building the cars, chose materials throughout that do not deteriorate—such as stainless steel and fiberglass-reinforced plastic for parts of the cars subject to damage from corrosion. Rubber bushings, sound-deadening materials and special wear-resistant plastics isolate truck moving parts and eliminate wear.

Budd, like P-S and Reynolds, has a proposal out to replace IC's aging fleet of electric commuter cars.

● **Tomorrow's cars?** Longer, faster and lighter probably describe the equipment tomorrow's commuters will be riding. The equipment will probably be more expensive but cheaper over-all because of reduced cost per passenger and because of reduced operating and maintenance costs. It seems almost a certainty that transit/commuter equipment delivered to cities and railroads in the decade ahead will be constructed of a bewildering array of materials ranging from moulded plastics and fiberglass to exotic metals and other materials.

Higher demands per dollar spent in the transit/commuter boom ahead promise to transform passenger-carrying equipment in much the same manner that research and expanding markets transformed aircraft—inside and out—during the last 20 years. ■

# Transit legislation likely soon

As Congress prepared to return on April 6 from its Easter recess, there were promising indications that H.R. 3881, the long dormant Urban Mass Transportaion Bill, would at last get clearance from the House Rules Committee for early action on the House floor.

H.R. 3881 is the House counterpart of S.6, the bill introduced by Senator Harrison Williams (D.-N.J.) with the blessing of the Kennedy Administration. The Williams bill, which is the only part of the Kennedy Transportation Program yet to clear either house of Congress, passed the Senate on April 4, 1963, by a vote of 52 to 41. But H.R. 3881, although it was favorably reported by the House Banking and Currency Committee, has been languishing in the House Rules Committee ever since that committee's hearings were concluded on June 13, 1963.

● **Strategy.** Despite frequent predictions from Washington pundits that the Administration-backed transit legislation would be allowed to die in the Rules Committee, supporters of the legislation have been less concerned about bringing it out of the Rules Committee than about its fate when it reached the floor of the House. Although Rules Committee Chairman Howard W. Smith (D.-Va.) has been steadfast in opposing the transit bill, there have been indications that the House leadership could have brought the bill before the House floor at any time that its sponsors thought it had sufficient votes to be absolutely sure of passage.

Current indications that H.R. 3881 will be cleared by the Rules Committee promptly, thus permitting a floor vote, are, therefore, signs that the bill's managers, Representatives Albert Rains (D.-Ala.) and William B. Widnall (R.-N.J.), chairman and ranking minority member of the Subcommittee on Housing respectively, are optimistic about its chances for passage.

● **"The time is now."** Congressman Rains, who was first elected to the House of Representatives in 1944 and who has announced his intention of retiring from Congress next January, is reported to take a strong personal interest in passing the transit bill before his retirement. "The time to strike on the mass transit bill is now," he told a group of his fellow Congressmen at a luncheon held shortly before the Easter recess.

"I have promised the President," Congressman Rains added, "that I would act as floor manager for the bill, and all of the reports I have make me optimistic of passage if all of us interested in mass transit legislation buckle down to work. . . I plan to devote my full energies to achieve passage of this much-needed legislation," the Congressman concluded.

● **LBJ likes it.** Originally part of the Kennedy transportation program, the urban transit legislation has received—and is receiving—strong support from President Johnson. Critics of the bill have tended to discount President Johnson's support on the grounds that the President, as a Texan and a Southerner, cannot afford to do anything but support a bill designed to help the urban East. This point-of-view, however, overlooks the fact that much of the grass-roots support for the bill is coming from Congressmen representing small and medium cities. As George Anderson, executive vice president of the American Transit Association (whose organization includes in its membership most of the local bus lines in the United State) put it: "It would be wrong to dub this legislation a 'big city' bill. It is vitally important to the smaller community. A town with 50,000 would face real hardship without any public transportation. Those too young or old to drive would have their lives severely disrupted. This legislation will help insure the continuation of service in medium and smaller size urban areas."

● **Busy bandwagon.** Organizations that have endorsed the urban mass transportation legislation cover a broad range of urban activities. They include, beside the American Transit Association, the American Municipal Association, the Association of American Railroads, American Institute of Architects, American Institute of Planners, Institute for Rapid Transit, National Housing Conference, National Association of Home Builders, Railway Progress Institute, United States Conference of Mayors, and many local chambers of commerce. The Urban Passenger Transportation Association has been formally organized to coordinate the efforts of these diverse groups.

The first problem that had to be overcome was the opposition of labor groups to any change in job-protective amendments that were added before the bill passed the Senate but which are unpalatable to many of the Southern Democrats whose support is needed. Indications are that this problem has been solved and that the House bill will include legislative language on the question of collective bargaining and job protection that will be satisfactory both to labor and to the bill's other supporters.

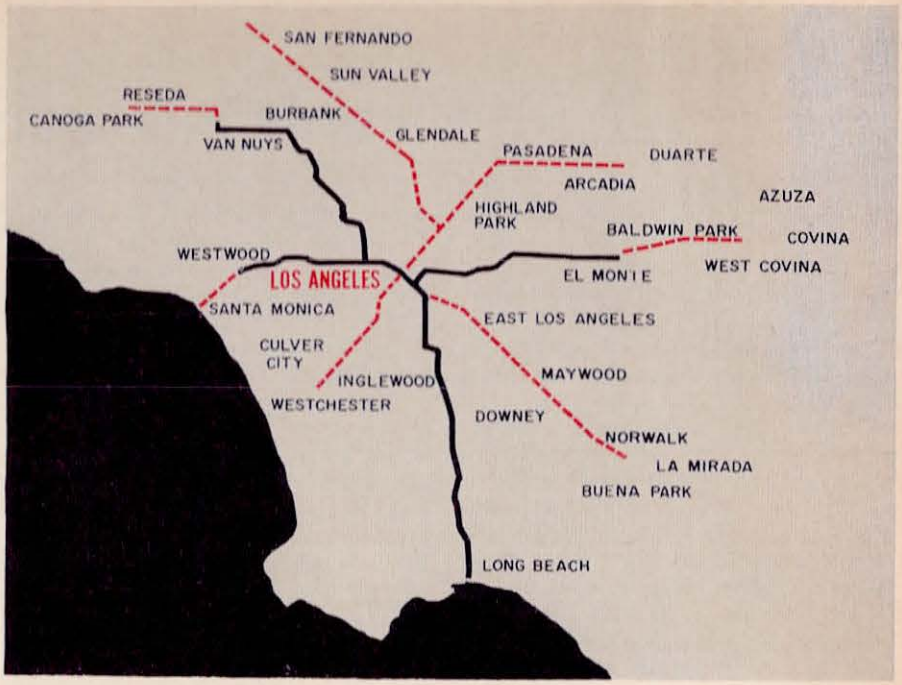
● **GOP support.** Speaker John W. McCormack (D.-Mass.) is reported to be ready to take up the measure, following a head-count that indicates approximately 40 Republican votes will be added to the Democratic support for the bill.

Some of the Republican support, as is to be expected, comes from California, but most of it is centered in the Eastern megalopolis, particularly New Jersey, New York, Pennsylvania, and Massachusetts. Although there will be defections from the Democratic ranks, the balance at the moment appears to favor passage of the bill.

Even if the House passes the bill in mid-April, there will be a time-lag before President Johnson can sign it into law. Presumably there will be differences between the House version and that passed by the Senate a year ago. This will require the bill to go to a Conference Committee of the Senate and House to compromise any differences. Under its rules, the House could accept the conference report immediately, but the Senate would be unable to take up the Conference Report until after the Civil Rights debate is concluded. At this point, that would appear to postpone final action on the bill until Memorial Day, at the earliest.

# Los Angeles looks for a rail way

**The Transit Authority wants legislation to help it build a 64-mile rapid transit line.**




Black lines represent Los Angeles' proposed 64-mile rail rapid transit network; red lines, possible extensions.

The 5,000-square-mile Los Angeles Metropolitan Area, often described as a group of suburbs in search of a city, is currently involved in a new hunt.

This one is aimed at finding a way to raise the money to sew its suburbs together with a rail rapid transit system. The going is tough—with highway groups setting up the most formidable roadblocks—but transit proponents are optimistic.

At stake is a proposed 64-mile cross-shaped rail network that would link the San Fernando Valley with Long Beach, and West Los Angeles with new suburbs in the eastern part of the metropolitan area. To do this will cost an estimated $669 million.

"The need for rapid transit is clear," Los Angeles Metropolitan Transit Authority Executive Director C. M. Gilliss has told state legislators. "We have shown where it should be built and how much it will cost in the locations acceptable to the communities served. We have shown that a rapid transit system will not pay for itself . . . that in fact, it's going to cost a lot of money."

And therein lies the problem—how to raise the necessary money.

"Highway users in southern California and the special taxes they are called upon to pay have become the targets of renewed efforts to subsidize the construction of a rapid rail transit system in the Los Angeles area," members of the National Highway Users Conference have been told in a bulletin.

"The current campaign is directed toward amending a section of a law passed by the 1963 legislature which permits county boards of supervisors to levy a vehicle license fee of one-half of one per cent of the market value of any motor vehicle. This is in addition to the two per cent ad valorem tax already levied on vehicles by the state 'in lieu' of a personal property levy."

Counters MTA's Mr. Gilliss: "We have suggested a method of financing using the revenues of the system and the in lieu tax provided by the Collier-Unruh Bill, backed up by the ad valorem base. This method produces all the financing benefits of ad valorem taxes without actually placing the cost of the system on the backs of the already overburdened taxpayers."

## Strong civic backing

Apparently, city and county officials feel the MTA's financing proposal is built on firm ground. They recently gave a vote of confidence to the transit body, accepting MTA contentions that it is indeed impossible to build and operate the proposed rapid transit system out of fare box revenues alone.

City and county officials now agree that amendments to the state's MTA Act are necessary. These would give MTA power: of eminent domain for the new system's routing; to get financial aid through the motor vehicle act approved by the legislature last year; and to issue general obligation bonds if the voters approve.

● **The growing giant.** Los Angeles' fantastic population growth since the end of World War II—from 4.3 million in 1950 to more than 7 million in 1964—has put a severe strain on its means to move people about. The metropolitan area now has 260 miles of completed freeway snaking through it, with a system of 800 miles scheduled for completion by 1980. Los Angeles and Orange counties now have a joint car population exceeded only by five states.

As the driving population grew, the freeways grew too, and traffic congestion grew along with all of it. Even during the years of the most feverish freeway building, Los Angeles officials could see the skid marks on the road ahead. Some 25 or 30 studies of rapid transit have been made in the area in as many years.

Transportation engineers DeLeuw, Cather & Co., commissioned by the City of Los Angeles for one of the studies, recommended back in 1945 that a rail rapid transit system be built because "an all-bus operation is impractical." And in 1948, in the last study made before the creation of the Metropolitan Transit Authority, the Los Angeles Chamber of Commerce concluded that: "Rail transit is a must, our growth is phenomenal, only rails can do the job, our people must have rail rapid transit to take full advantage."

● **Decision on a system.** Originally competing with the conventional two-rail system proposed for Los Angeles were two monorail plans. But the MTA rejected both on grounds that neither had any measurable experience in mass transportation; they created more technical problems than the two-rail system; and they would cost considerably more.

Referring to monorail, the MTA's Chief Engineer E. R. Gerlach said that "their failure of development in switching alone is enough to preclude any

further serious consideration in a high-speed metropolitan transportation system because of the safety factor."

In contrast, he said, "the high-capacity, high-speed vehicle system running on twin rails has a proven record of operation and development. Its operating experience can be counted in the hundred of millions of miles all over the world. Its operating and maintenance costs are a matter of record."

● **What it will take.** The 64-mile grade-separated rapid transit system that has been settled on will include 19 miles of subway, 38 miles on an aerial structure, and 7 miles of surface line.

The basic plan was laid out after consultants determined the patterns of movement and travel corridors used by most of the commuting public most of the time.

The system will be capable of moving 10,000 persons in each direction during the peak 20-minute rush periods in the morning and evening. It will also be called upon to carry 30,000 persons per hour per track on the common section of track between Western Avenue and Wilshire, and 7th and Hope Streets in downtown Los Angeles. About 400 transit cars will be needed for the system.

● **Pitch to Sacramento.** Last Fall, MTA officials and other supporters of the rail rapid transit network for Los Angeles appeared before the state's Assembly Interim Committee on Transportation and Commerce, meeting in Los Angeles, to state their case.

Mr. Eyraud said the MTA can no longer review proposals that do not even approach the solution to the area's transportation problems. "Each year's delay adds approximately $30 million to the total transit bill," he estimated.

Mr. Gilliss told the Assembly committee that despite the competence of the existing public transportation system in the area "we know that MTA's bus system cannot be considered an adequate answer to the transportation needs of Los Angeles because the buses are the victim of the same congestion that faces the automobile."

The Authority is turning to the state for help with its rapid transit system because, basically, it is a child of the state. MTA was created in 1958 by the State Legislature, based on the realization that only a state agency could operate efficiently across the boundaries of the four counties and more than 150 cities and communities served by MTA. It was started with a $40 million bond issue, but has since supported itself through the fare box.

If MTA is to get the rail rapid transit system it wants, the legislature will have to act again. MTA hopes it will in 1964. ■

## Chicago transit line: a proving ground

A burning question confronting metropolitan transportation men—and railroads providing commuter service—is whether medium-density suburban areas can economically be linked with central city areas by high-speed rail service. Next week, the Chicago Transit Authority is embarking upon a two-year, $523,825 effort to get some answers—via a high-speed rail rapid transit extension from a north Chicago suburb, Skokie, to Howard Station in Chicago.

● **Coordinate buses.** As the high-speed service goes into effect on April 13, CTA's buses at the north end of the service will all operate on revised routes that will take them into the new rapid transit terminal at Skokie (Dempster Station). A route extension will provide bus transportation to the rapid transit terminal from the Old Orchard Shopping Center area in Skokie.

It is, in fact, coordination of a kind which railroad men in Chicago say CTA has been unwilling to utilize in conjunction with existing rail commuter schedules north, south and west.

CTA's effort to connect the outlying area with its 2,000-mile-plus network of rapid transit and bus routes within metropolitan Chicago is being financed, in large part, by the Federal Housing and Home Finance Administration.

FHHFA's portion of the demonstration project's expense is estimated at $349,217. CTA's contribution to the experiment will come to $137,415 while the village of Skokie will contribute $37,193 in cash and services.

● **Frequent service.** Skokie commuters will have service every ten minutes during rush hours. One-car, high-speed trains will operate at ten-minute intervals in rush hours and at 30-minute intervals at other times, Monday through Friday, between six in the morning and ten at night.

The trains will operate at a maximum speed of 65 miles an hour on the run—and have a scheduled speed of 45 miles an hour for the five miles between Skokie and Howard Street—a scheduled speed twice as fast as CTA's other rapid transit routes.

● **Measuring benefits.** As preparation for the "Skokie Swift" service going into operation next week, CTA conducted the first portion of a two-part survey of commuters March 19. Questionnaire cards were distributed to patrons on Skokie buses and on other buses carrying riders who could use the Skokie Swift service, so that CTA could get information as to where the rider started his trip, how he got to the bus stop, where he left the bus, his destination, and what the purpose of the trip was. The Chicago Area Transportation Study cooperated with the CTA and the village of Skokie in the survey.

● **Next, another survey.** After the Skokie Swift service has been in operation a while, the second half of the survey will be conducted to determine how many riders changed their commuting habits because of the new high-speed rail rapid transit service available to them.

CTA officers were optimistic as the demonstration project's beginning date neared. George L. DeMent, CTA board chairman, noted some examples of good luck. "We have had an exceptional break in the weather, the park-'n-ride lot at Dempster terminal, being built by Skokie, is on schedule—and so are all other parts of the project."

● **Background survey.** Mr. DeMent's confidence in the Skokie Skift demonstration project's ability to attract a dense enough crowd to make the service pay was, perhaps, based on knowledge gained from a CTA survey of businessmen in Chicago and adjacent suburbs.

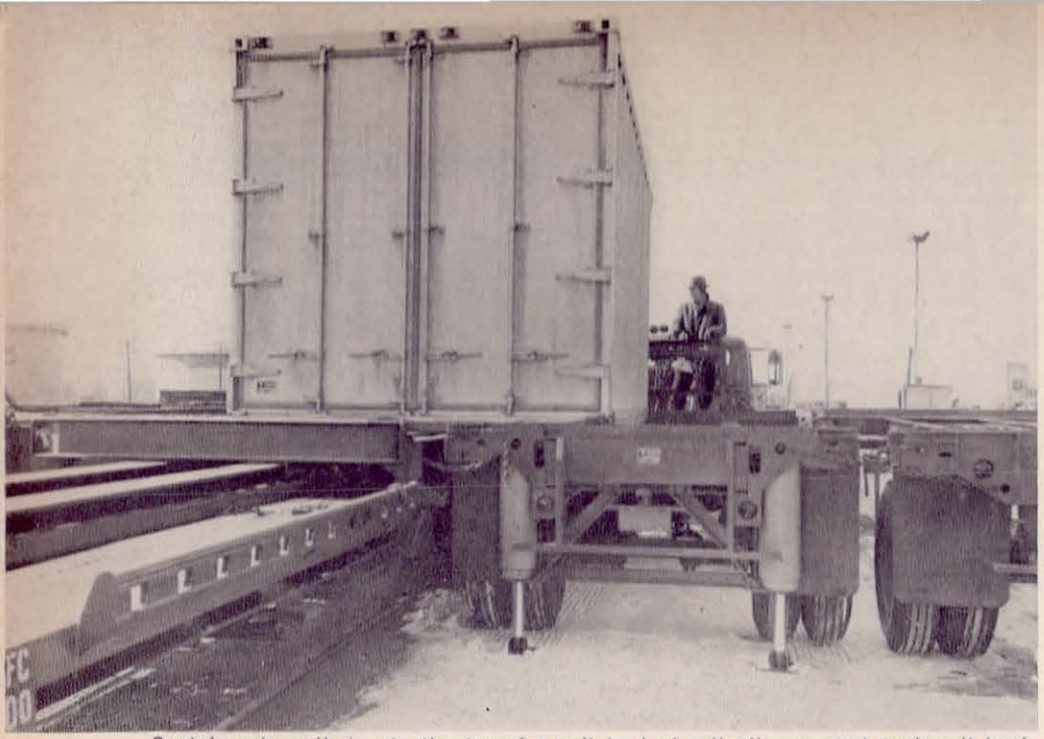
CTA sent 4,500 questionnaires to top businessmen in banking, retailing, manufacturing, advertising, insurance, real estate, sales and in many other lines of business.

"A total of 1,633 of these executives replied," noted Mr. DeMent. "Five out of ten Chicago area business executives use mass transportation regularly or frequently. When infrequent users are counted, it's more than eight out of ten. And more than eight out of ten regard mass transportation as important to their business activities."

There were 50% reporting they were regular CTA riders, 23% reported being regular railroad commuters and 27% reported using a combination of commuter railroads and CTA or other transit facilities. "Only 11 persons reported using suburban buses exclusively."

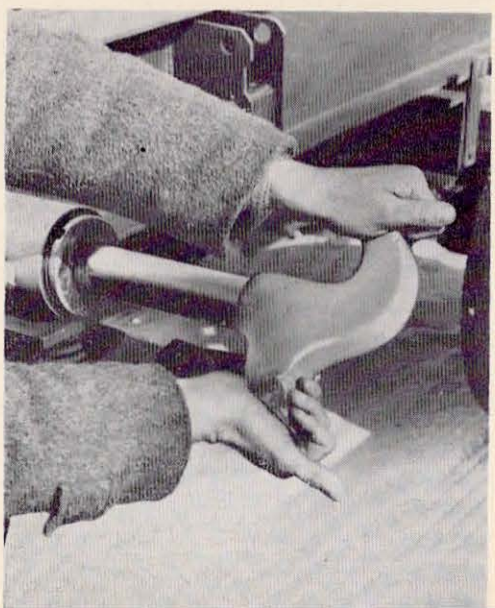
# GATC develops transfer equipment

## Speed and low cost claimed for side-loading unit designed to get containers on and off cars.



Container is pulled onto the transfer unit by hydraulically-operated push-pull hook.

Container ready for delivery on a truck chassis has been pushed into position by the side-transfer unit. Rectangular sockets at lower edge, front and rear of container, will receive legs for parking container at a receiving dock.



Hook is rotated through 180 degrees to change between "push" and "pull" positions. To push or pull, the spring-loaded hook engages in a transverse rack attached to underside of a container.

A fast side-loading transfer unit for handling containers has been developed by General American Transportation Corp. The unit was demonstrated to the press at GATC's East Chicago, Ind., plant last week. It soon will be shown to railroad and industry personnel in Chicago.

● **Two-minute transfer.** Twenty-ton containers currently in use can be handled by the unit at most loading and unloading sites to or from piggyback rail cars and trucks or semi-trailers in less than two minutes. Time includes leveling of the side transfer unit according to Spencer D. Moseley, GATC president.

Hydraulic jacks line up the transfer unit with the bottom of a container on a piggyback car. This operation is necessary on the uneven ground often found in freight yards and at team tracks. Once aligned, the container is moved from car to truck, or from truck to car by hydraulically-operated push-pull hooks. The hooks, mounted at the center of the unit on both sides, are actuated by controls at the front of the transfer unit.

Bolsters on the car under each end of the container are used as skids to move the container. When it is loaded on a car, semiautomatic hinged side plates lock into each corner of the container. The bolsters are anchored into the cushioned rub-rail of the G-85 piggyback car, which provides an eight-inch movement in either direction to cushion the loaded container.

Bolsters of similar type are used on delivery trucks and semi-trailers. Standard flat-bed semi-trailers can be equipped with conversion bolsters for hauling containers. An alternate locking system for semi-trailers and local delivery trucks is available.

"While containerization has many

recognized advantages, including economy, damage reduction, freedom from pilferage and speed in handling," Mr. Moseley said, "the high cost of existing handling equipment has been a serious problem. Many shippers and carriers could not justify the investment in transfer equipment, including heavy-duty lift trucks and cranes.

● **'Economical method.'** "General American's unit provides a simple, economical method for doing the job. Compared with an overhead crane selling for $60,000 and up, for a heavy-duty lift truck at $30,000, the new side transfer unit at $5,000 includes the trailer chassis on which it is mounted. The unit is moved and powered by a conventional hydraulic fifth-wheel truck tractor. Supplementary controls for use with the side transfer unit can be furnished for less than $500."

## Demountable legs

Other components of General American's container system include demountable legs for parking containers at delivery points, trailer-to-truck transfer units for motor freight yards, quick-transfer delivery equipment and one-second locking for containers on trucks and trailers. Delivery is made at a freight dock by a vehicle that raises the container a few inches so portable legs can be inserted in each corner. The combined operation — unlocking the container from the truck, elevating, adding legs, lowering the vehicle and driving away — takes approximately three minutes.

● **High adaptability.** "The new side unit is fully adaptable to most existing containerization equipment," Mr. Moseley said, "as well as with expected future developments. Use of containers at shipping and receiving docks not only is four times as efficient as are trucks or semi-trailers but costs less than half."

General American's concept of the new transfer unit is a progressive development of the basic Steadman container systems (RA, April 24, 1961, p. 49) which GATC will manufacture and distribute in the United States under long-term licensing agreements (RA, Dec. 23/30, 1963, p. 40).

A somewhat similar side-loading system is the 40-foot Dempster Bros. Side-Loder, a trailer-mounted version of Dempster's 20-foot mounted unit now used in REA's coast-to-coast Unit-Haul container system (RA, March 11, 1963, p. 36). The 40-foot unit has movable bolsters to permit handling containers of any length from 20 to 40 feet. Hydraulic leveling jacks adjust the Side-Loder between the piggyback car and delivery trailer. ■

# RAILROADING AFTER HOURS WITH JIM LYNE

LYNE

**WHAT IS A FAN?**—A number of railfans have objected to our adverse comment (RA, Nov. 25, 1963, p. 106) on an article in Playboy magazine which showed affection for railroad service as it was in the days prior to World War I, but no enthusiasm at all for today's trains. The fans who have written to us (e.g., Jim Scribbins of Milwaukee) insist that the Playboy writer is not a real fan.

Unless I misunderstand colloquial English, a fan is an enthusiast. There are at least three kinds of railfans: (1) those who have affectionate regard only for old-style railroading (diamond stacks and wooden cars); (2) those whose interest is limited to present-day pioneering innovations (e.g., those characterized by electronic devices); (3) those who like both old-style and new-style railroading. Most fans, praise be, are in the third category.

All three categories come under the definition of fan, as I understand the word. Categories (2) and (3) are helpful to the industry as it exists today. Those in the first category, because of their dislike for the innovations of the past half-century, tend to be crêpehangers for present-day railroading. I am all in favor of railfans as such, but the fan who tends to belittle in public all innovations since World War I is not especially helpful to the industry.

**HOW ABOUT THE NEWS BUTCH?**—There are a lot fewer news butches on trains these days than there used to be—because who wants a retail selling job any more that pays only a percentage of sales, instead of a dependable salary?

Not everything old is necessarily good or bad just because it is old—or new, for that matter. But some of those butches were real characters, occasionally augmenting their legitimate income by selling on the sly the kind of pornographic literature now obtainable openly on the newsstands.

This isn't to imply that the news butch is ancient history, or that he ought to be. Some of the few fellows left in this trade are still doing a good job.

**FAST DELIVERIES OF LOCOMOTIVES**—From Carmel, Calif., H. G. McClean writes to call attention to the shortened time interval between the placing of orders for locomotives and their delivery by the builders. He wonders whether shortened lead-time may not be costly to the purchaser.

Some of the reduction in time between announcement of orders and deliveries may come from delay in announcement of orders, after their actual placement. But diesel locomotives are, to a large degree, standard products. They are not generally built to tailor-made specifications, as steam locomotives used to be. I should suppose that the ability to build locomotives as stock items, in advance of actual orders, helps to stabilize production. I would suppose this would be an advantage to both buyer and producer. If I'm mistaken, please correct me.

**IS CONDUCTORING A PROFESSION?**—I keep on being nagged by the notion that there should be some way to grant recognition to superior competence in scores of railroad occupations—where the man's occupational designation carries no particular attribution of superior performance.

Take a freight conductor for instance. I know of some of these fellows who can get a local train over the road in half the time that others take to do the same job; and still they get the same money as their less able colleagues. Long service is recognized by hashmarks on uniforms of passenger trainmen, but length of service (it strikes me) is a less significant distinction than skilled and devoted performance. Once a fellow earns enough to live on comfortably, a little recognition of his worth would often mean more to him than more money or shorter hours—especially since more money and fringe benefits are not handed out on a basis of merit.

**CORPORATE FLYING**—NYC's John Salter tells me I goofed here (March 16) when I attributed twice as many plane-miles to corporate planes, as are flown by domestic commercial airlines. It is in plane-hours (not miles) where the corporate aircraft lead the parade. There is no reason to worry about the commercial airlines, of course. Their business is booming.

# Wanted: Men to meet leadership challenge

**Comprehensive recruitment and training programs on Southern Pacific are aimed at building a reservoir of leadership talent capable of coping with present and future railroad problems.**

**By H. M. Williamson**
Chief Engineer-System
Southern Pacific Company

Change and growing complexity confront us on every hand. They demand of railroad top management a new breadth and depth of knowledge, not just of how to run a railroad, but of all the surrounding influences that bear so importantly on whether our railroad industry will be carried forward on this tidal wave of change or be engulfed by it.

Much more is demanded, too, of railroad officers all down the line. In addition to the growing complexity of their specialized responsibilities, they must also be aware of a host of new outside relationships and considerations, influencnig almost every decision made.

Most established practices of 20 years ago have long since been scrapped. In fact, the procedures of 10 years ago are mostly superseded. And even the things we've been doing the same way for only a year or two are subject to re-examination to be sure they're still in phase with the times, or if there's a better way to do them.

The most important task the railroad industry faces is that of finding adequate leadership talent and generating adequate leadership skill to meet today's requirements and the even greater requirements of the future. Our great need in railroading today is for enough men to match the management challenge that has been created by this tidal wave of change both within our industry and in all the influences that surround it and affect it.

• **Old concepts inadequate.** We used to think that we could get all the management talent we needed just by the natural process of letting the most capable men work their way up on the basis of their experience and natural leadership talents. That still might be a fairly satisfactory system were it not for the speed with which things are moving. The fact is that this process of just letting the cream rise to the top is all too slow under today's conditions.

We used to think that no one could be expected to gain the necessary experience for an executive position short of age 55 to 60. Similarly, positions in the second and third levels down from the top were considered to require only slightly fewer years of experience. As a result, too often we found the "back-up" group, who would normally be expected to step into top positions, already close to retirement age when the opportunity finally arrived.

We have had to face up to the fact, too, that we are now in keen competition with newer industries in attracting the best of the upcoming crop of young people who are entering the job market. In times past, when opportunities to go to college were not too plentiful, many able young people were coming to us directly from high school. These are the people who, in many cases, are our capable railroad executives of today.

• **Need for recruitment programs.** But today many ambitious young people can find ways to get a college education. By the time graduation nears, the best students are being actively courted by the electronics, space and other glamor industries. To get our share of the best, we have to go out on an active recruiting campaign. We have to offer a definite program of training leading to management positions. We have to sell the idea that railroading is a progressive, dynamic industry offering outstanding career opportunities to those able to meet the challenge.

This is not to say that we can afford any letdown in a search within our own ranks for promising young talent, whether college or non-college. Parallel to our college-recruitment efforts, we must have some workable machinery, extending down through the line organization, to spot bright young people early in whatever capacity they may be working, and to bring them along to developing their potentials.

So the solution to this problem of meeting the management shortage starts with getting enough potential talent for our future needs—both by college recruitment and a search within our own ranks—and then continuously developing it so we can move the most promising individuals to positions of great responsibility as quickly as possible.

In Southern Pacific Company we have been diligently at work over the past decade on this whole broad problem of developing the best abilities in our people. Today we have what we consider a fairly well-rounded program of recruiting, training and development. It is directed not only to this particular effort to speed the development of our officers. It also has as its purpose the training and development of all employees to make the most of their capabilities.

Let's look first at those parts of the program which relate specifically to the development of officers. We will come back a little later to other parts which have a broader relationship to all employees.

• **Two-year training period.** People we recruit from colleges, as well as those selected from the ranks, undergo an intensive management training program. This normally covers a two-year period, but its duration and content are flexible, tailored to the individual development, abilities and interests of each trainee.

## First-year orientation

The first year of the program is devoted to orientation and familiarization, including as much actual work experience as possible. For example, four months may be spent working as a brakeman or switchman. All departments are covered, with particular emphasis on the operating and traffic departments. About 60% of this training is conducted in the San Francisco Bay Area, in and around our general office, and the remainder at field locations.

During the second year, the trainee receives on-the-job training in the area of specialization for which he shows ability and interest. These areas include operations, civil engineering, mechanical engineering, traffic sales and service, trucking operations and related activities. The program involves a substantial amount of traveling during both years.

After successfully competing the program, the trainee is appointed to a position of responsibility in his specialized field—assistant trainmaster, for example, if his specialty is operations. Future opportunities for advancement are then determined by the individual's performance and ability.

In the first three years of the pro-

This article is adapted from an address presented before the recent annual convention of the American Railway Engineering Association.

H. M. Williamson

gram—it is now entering its fourth year —we were interested in training young officers principally for the operating and traffic departments. Now, however, we are also looking for engineers who will be graduating with bachelor's degrees in civil, mechanical, electrical and industrial engineering. Like our other trainees, these men will get training in all principal departments the first year. They will get intensified on-the-job engineering experience in the second year. At the start of the third year they will get their first regular appointments in such positions as general track foremen or project engineers.

● **Recruitment procedure.** A year in advance of graduation we write to some 30 colleges and universities of recognized status, mostly in the states we serve, to set up dates when we will have a recruiter on the campus to interview interested seniors in February and March. Placement offices of these colleges are supplied with copies of the booklet describing our program. This booklet serves two purposes. It lets counsellors know what we have to offer and the type of people we are looking for, so that they can steer students to us who have appropriate interests and skills. The booklet also lets the interested student know what our program is, in advance of the interview, so that the interview time—usually only about 30 minutes—can be used most profitably.

I should make it clear that in our recruiting we are far more concerned with the quality of the people we get than we are in the quantity. Of some 300 students interviewed, it is not unlikely that our intensive screening procedure will bring down to only eight or ten the number we will actually take into our training program each year.

First and heaviest screening takes place right at the campus interview, when only about one out of four will be offered further encouragement. This brings us down to some 70 prospects. To these we send questionnaires and a request that they submit transcripts and write an essay on any subject they consider important.

Another screening then takes place, on the basis of this information. This may reduce the candidates to about 20. We invite these to San Francisco on an all-expense-paid basis. They spend a full day with us, being interviewed by our key younger officers, talking to our trainees and taking a battery of tests, the results of which are used to confirm our own judgments.

Shortly thereafter our final selection is made and the successful candidates —and the unsuccessful ones, too—are notified.

● **What they are looking for.** In this rather elaborate process of interviewing and screening, what, exactly, are we looking for? What are the qualities we try to find in a young man, just finishing his education, which we think will indicate his capacity to move up eventually and meet the increasingly difficult challenges to be found at higher policy-making levels?

We are looking for young men with a broad range of interests, but who also have an intense enthusiasm for railroading as a field in which to make a career. We are looking for men with energy and the ability to direct it constructively. Grades and leadership in extra-curricular activities are a good indication of this. Above all, we are looking for imagination, the habit of thinking creatively, and the attitude of reaching out for new challenges.

## Eliminations are few

Despite our high criteria and our careful screening, we can't be 100% right in our judgments of candidates for the program. We do feel encouraged, however, that only 10% of the young men selected have been washed out or otherwise eliminated during the training period. While only the years ahead can tell what the full leadership potential of these trainees may be, we are well satisfied with the performance to date of the first two groups to complete the training. It is particularly encouraging that our principal officers have been watching them closely, are pleased with their performance and are anxious to take more of them into their departments.

● **Employees go to college.** In another phase of our efforts to advance the management skills of our officers, we enroll a substantial number of our people in regular and special college and university courses. Some of these enrollments are for as much as two years. Most of them are for much shorter periods. But regardless of the length of the course to which a man is sent, the company pays all his fees and expenses, in addition to continuing his full salary.

The program had its beginnings in 1950 when we started sending a few of our higher-level people to the Advanced Management Program at Harvard. Later we began using similar programs at Stanford, M.I.T., Carnegie Tech and the University of Pittsburgh.

The thinking was that we needed outside help to give our management people and our candidates for management positions the broad perspectives they needed. The things we could do ourselves to speed up the development of our officers — force feeding them with new experiences and new challenges—were certainly helpful. But this training within the company did not give much of a look at the outside world—the entire economic and social situation in which the railroad operates. So we looked to the universities for help.

● **Program expanded.** In 1956 our program of sending people to college was greatly expanded. In addition to the Advanced Management Programs, we inaugurated our Middle Management Program for junior officers, using the Transportation Management Program at Stanford, the Program for Management Development at Harvard and similar programs at other universities.

We also inaugurated in 1956 a variety of other college programs for people at any level, tailored in each case to their individual needs. Candidates for all these programs are very carefully chosen and screened on the basis of recommendations from department heads, tests and interviews.

One of these programs, for people with little or no previous college experience, calls for their enrollment as regular students for one semester, or two quarters, in liberal arts work at colleges or universities in the immediate vicinities of their homes. Those considered for this program must be under 40 and have at least three years with the company. Courses taken should be unrelated to their work with the company. The purpose here is to broaden intellectual horizons, not to provide technical education.

● **Qualifying for degrees.** Another program is for people who have made substantial progress toward a degree but need more time in college to qualify for it. Age limit and service requirements are the same as for the one-semester program I have just men-

tioned, but this program provides for one academic year or more for the purpose of acquiring a degree.

For technical people at any level, we have a special adaptation of the degree program I have just described. The qualifications are the same—maximum age of 40 and minimum of three years' service—but the aim is toward increased technical proficiency rather than toward broader experience in the field of liberal arts. This program provides one or more academic years to complete engineering degrees or to improve engineering qualifications.

Finally, we are also concerned with producing a comparatively small number of graduates at the Master's Degree level—mostly in the fields of engineering and business administration—and have just inaugurated another program for this purpose.

Southern Pacific's use of these various college and university courses has been extensive. Since 1950, 84 of our officers have participated in Advanced Management Programs. Since 1956, 141 have been enrolled in Middle Management courses, and 261 more have attended the various other kinds of programs I have mentioned. In other words, for each of the past eight years we have had an average of 55 of our people away from the job, participating in courses that run anywhere from one month to a full 12 months.

● **Also extension courses.** I should also mention an arrangement started only last year whereby Southern Pacific people can take college extension courses and correspondence courses, on their own time, and be reimbursed for tuition fees. Any course may be taken, provided it leads to a degree or is connected with the type of work done by the employee. The company repays the employee's tuition costs if he completes the courses with a grade of "C" or better.

We also have an extensive internal training program open to all our employees. This program includes a variety of courses in such subjects as orientation, freight rates, passenger tariffs, public speaking, effective reading, salesmanship, work simplification, shorthand and business letter writing. Many of these are available by correspondence as well as in the classroom.

We, as engineers, have a particular responsibility in helping solve the problem of developing tomorrow's leadership talent. Although I have no figures at hand, I would guess that more top railroad executives have come up from the ranks of the engineers than from any other single source. I would also venture the guess that this will continue to be true, perhaps even to greater degree, in the future. ■




# MoPac has over 4,300 cars on Timken® bearings to cut costs, improve performance

These 100-ton Missouri-Pacific hoppers are among the latest Timken bearing-equipped cars to go into service on this modern railroad. They will haul iron ore, coal, and other bulk commodities as part of MoPac's new service to shippers.

This railroad's "Roller Freight" fleet now includes 2,930 box cars, 100 gondolas, 700 covered hoppers, 600 hoppers and 20 piggyback flat cars. What's more, Texas and Pacific and Missouri-Illinois Railroads, subsidiaries of MoPac, have over 300 Timken bearing-equipped cars. Grand total: over 4,300 cars on Timken® bearings.

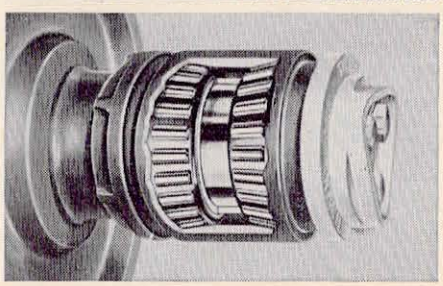
Missouri Pacific is among the leaders in modern railroading who are putting roller bearings on new freight car axles. These "Moderneers" realize this is the only effective way to do away with the hot box problem, cut down bearing maintenance and operating costs. In fact, almost all new freight cars are now being ordered with roller bearings—and Timken "AP" all-purpose bearings are leading the way.

Fortunately for your industry (and for us) the Timken Company has specialized on the bearing with the taper for 65 years. It's the only kind we make. So you can turn to Timken bearings for the *ultimate* in nickel-rich steel material and dependable workmanship. The Timken Roller Bearing Company, Canton, Ohio. Also makers of Fine Alloy Steel and Removable Rock Bits.

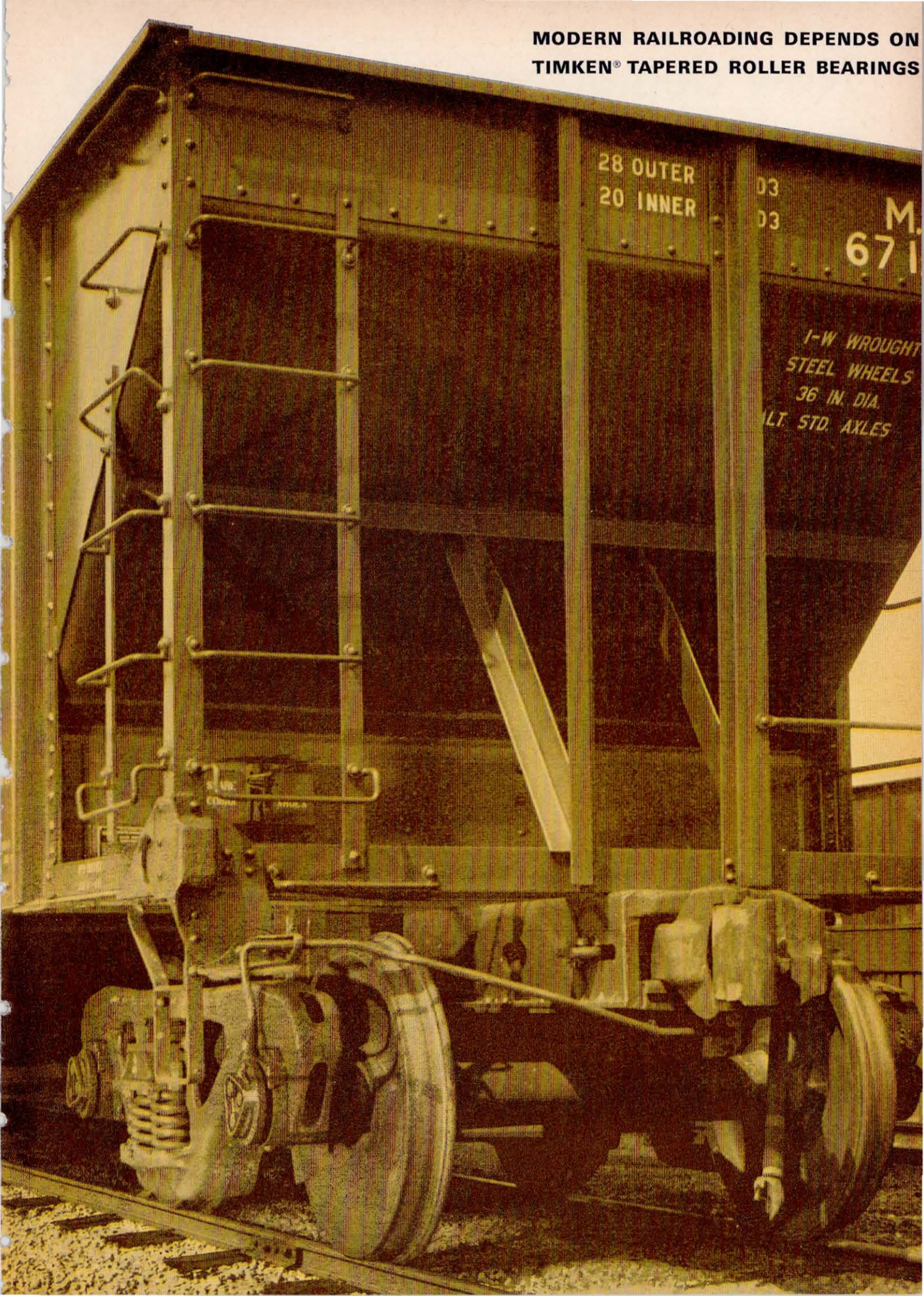
**QUALITY TURNS ON HEAVY DUTY**

**TIMKEN®**

**TAPERED ROLLER BEARINGS**



**MODERN RAILROADING DEPENDS ON TIMKEN® TAPERED ROLLER BEARINGS**



# New demurrage rules proposed

**By penalizing slow freight car handling, the AAR expects its revised scale of demurrage charges to greatly increase car utilization. If member roads approve, the changes go into effect July 1.**

With the announced objective of increasing utilization of the nation's freight car fleet, directors of the Association of American Railroads have recommended adoption of a new scale of demurrage charges.

The new scale, which is expected to become effective on or about July 1 if it is approved by the railroads, would be:

- $5 per car per day for each of the first four chargeable days;
- $10 per car per day for each of the next four days; and
- $15 per car per day for each day thereafter. This entirely new maximum charge of $15 per day is frankly aimed, the AAR says, "at discouraging shippers from using freight cars for storage or warehouse purposes."

Other existing demurrage rules would remain unchanged. These include: (1) a free time allowance of 48 hours for loading or unloading; (2) charging for Saturdays, Sundays and holidays only after the second chargeable day, and (3) the so-called average agreement, under which the first four chargeable days may be offset by credits earned by shippers for the prompt release of other cars.

The proposed $5-$10-$15 scale would be the first change in demurrage rates since 1957. Rates then adopted, and still in effect, provide a charge of $4 per car per day for each of the first four chargeable days, and $8 per car per day for each subsequent day.

- **No surprise.** The proposal to boost demurrage rates can hardly come as a surprise to shippers—and there is some ground for belief that they will not strongly oppose the relatively modest increase now suggested.

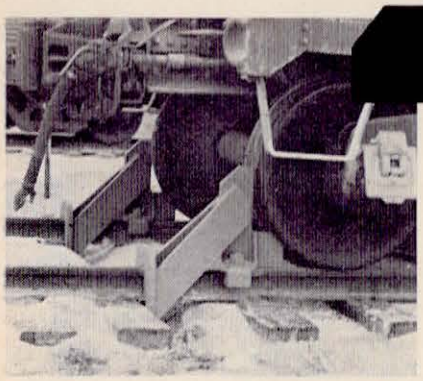
They did oppose, strongly and vocally, a far more drastic increase included in AAR Operating-Transportation Division Notice No. DR-22, on which hearings were held in Chicago last fall (RA, Sept. 16, 1963, p. 36). But even then, some shippers indicated they might not mind a reasonable increase in charges, so long as free time, week-end and holiday provisions, and the monthly averaging rule were not disturbed.

More than three out of four shippers who subsequently responded to a Railway Age Traffic Poll on demurrage (RA, Oct. 28, 1963, p. 43) similarly indicated a belief that a reasonable increase in demurrage penalty assessments could be justified if other rules were left unchanged.

The AAR proposal now pending seems designed to meet shipper objections to the earlier proposal.

In recent years, demurrage has been producing from $30 million to $35 million per year for the railroads. Its primary purpose, however, is not so much to raise revenue as to insure prompt loading and unloading of freight cars, and thus to bring about maximum car utilization. ■


**WHY HAYES WHEEL STOPS LOOK LIKE THIS**



***instead of like this***

**Hayes Wheel Stops are designed to be used. And remember: (1) All Hayes Wheel Stops are universal fit—no need to specify rail section if within ordinary limits. (2) All Hayes Wheel Stops are installed without drilling the rail. Above: Type SF—more than 40,000 in use. Write today for complete description and prices.**

**Car wheels wear down—they gradually decrease in diameter as they travel. If the face-curve of a Wheel Stop is made to fit a new wheel, a worn wheel will want to roll up the curve toward the top. It may even go right on over the Wheel Stop.**

**Hayes Wheel Stops receive all wheels—new or worn—with equal efficiency. The wheel contacts the lower abutment first. Then, if the car is moving faster than is normal, the wheel lifts slightly from the rail, and both lower and upper abutments are engaged. There is no tendency for the wheel to rise further. And both abutments together divide the work of carrying the forward thrust down to the shock-absorbing tie against which the Wheel Stop bears.**

**Hayes Track Appliance Co.**

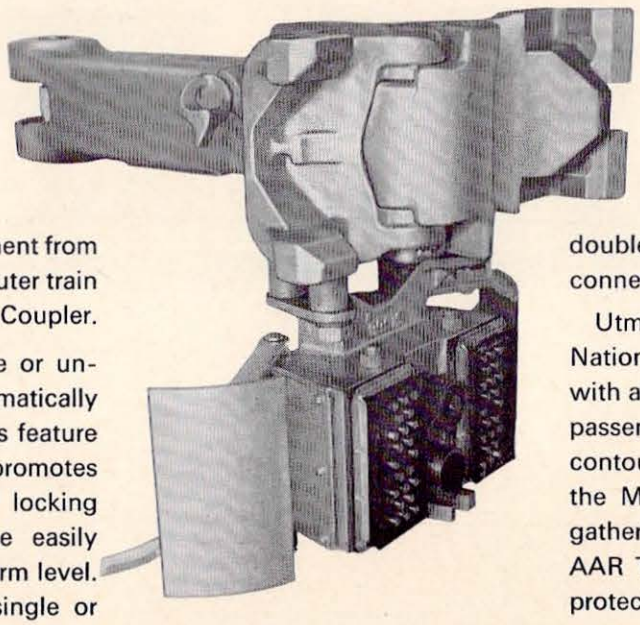
**RICHMOND, INDIANA**

*Specialists since 1903 in side track security.*

# NATIONAL TLC TIGHTLOCK COUPLER

## Speeds Commuter Car Operations... Increases Train or Yard Crew Safety

### NATIONAL TLC TIGHTLOCK COUPLER



Similar to AAR Standard H Tightlock, including the interlocking features, this Train Line Connector coupler weighs approximately 100 lbs. less than the Type H and has 80% static tensile strength of the latter.

Here's another new development from National, this time in the commuter train field — the new TLC Tightlock Coupler.

It is now possible to couple or uncouple air and electric lines automatically from train cab or trackside. This feature saves time to speed operations, promotes crew safety. To assure proper locking a lock telltale device can be easily observed from ground or platform level. Side rotary operation, either single or double, provides clearances for trainline connector.

Utmost flexibility is a feature of the National TLC Tightlock Coupler. It mates with all AAR Standard couplers used on passenger carrying equipment; the 10A contour (E coupler); or couplers with the MCB contour. Vertical and lateral gathering ranges are equivalent to the AAR Type H Tightlock, and anti-creep protection is provided.

GEARED TO PROGRESS P R I MEMBER

*Transportation Products Division*
*Cleveland, Ohio 44106*

*International Division*
*Cleveland, Ohio 44106*

*National Castings Company of Canada, Ltd.*
*66 Portland St., Toronto 2B, Ontario*

*moving ahead fast... to keep you competitive*

NATIONAL CASTINGS COMPANY

3C GLIDING SILL • COUPLERS AND ROTARY COUPLERS • TLC TIGHTLOCK COUPLERS • YOKES • DRAFT GEARS • FREIGHT TRUCKS • JOURNAL BOXES • ROLLER BEARING ADAPTERS • SPEEDLOADER CONTAINER HANDLING SYSTEM

1655-A

LONG ISLAND
ATLANTIC COAST LINE
MONON

# Funny. An ALCO Century doesn't look like a hotcake.

But more and more railroads are choosing ALCO Century locomotives—America's most complete line of modern motive power.

The Long Island and Lehigh and Hudson Railroads, for example. They chose the Century 420, with its 4 traction motors and 2000 hp.

The Erie-Lackawanna, Reading, Pennsylvania, and Green Bay and Western Railroads chose the Century 424, with 4 traction motors and 2400 hp.

The Atlantic Coast Line and Monon chose the Century 628—America's most powerful single-engine locomotive. Featuring six motors and 2750 hp.

The Union Pacific chose the most powerful diesel locomotive available today—ALCO's Century 855; 2 engines, 8 traction motors and 5500 hp.

Every one of these ALCO Century locomotives is driven by the famous 251 engine—generous with power, but a miser on fuel and maintenance needs.

In short, there's an ALCO cost-cutting Century that can increase the efficiency of your motive-power operations. Let your ALCO representative give you the full story...over a breakfast of hotcakes!

**ALCO**

***ALCO PRODUCTS, INC., 530 FIFTH AVENUE, NEW YORK 36, N.Y.***

# DON'T BUY SPRINGS BY "LOOKS" ALONE

## (you may be buying 'limited service' springs)

**'LIMITED SERVICE' SPRINGS** can only give poor load-carrying ability with a short service life measured in costly replacements. Such things as lack of quality control over bar stock selection, lack of temperature control during heating and coiling operations, double heat treating, excessive end-tapering and shot-peening intensities that do not conform to A.A.R. specifications all contribute to poor spring performance. Compare the costs of frequent replacement with original costs. Why pay good money for built-in failure.

**ASF EXTENDED LIFE® SPRINGS** give you the best service life. Bar stock is accepted or rejected *at the mill*, by ASF metallurgists. Heating and coiling conditions are electronically controlled. Controlled Direct Quench eliminates needless scaling—reduces decarburization. Controlled hardening temperatures give highest strength levels. And ASF "uniform process" shot-peening gives Extended Life Springs maximum fatigue resistance.

**Write us or contact your nearest ASF representative for further information, including actual in-service test data.**

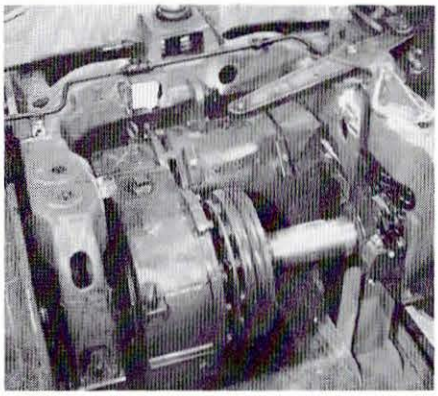
**SALES OFFICES:** Hammond: Hohman and Hoffman Streets; New York: 230 Park Avenue; Philadelphia: 6 Penn Center Plaza; Cleveland: 1909 Terminal Tower Building.
**SALES AGENTS FOR ASF SPRINGS:** Harry E. Connors, St. Paul, Minn.; Delano & Co., Jacksonville, Fla.; Mells Cargo Supply Co., Inc., San Francisco, Calif.; Mountain Region Supply Co., Omaha, Nebr.;

**CANADIAN MANUFACTURER AND LICENSEE:** International Equipment Co., Ltd., Montreal 9, Quebec.

**AMERICAN STEEL FOUNDRIES**
**INCORPORATED**
HAMMOND DIVISION
HAMMOND, IND. 46320
ONE OF THE Amsted INDUSTRIES

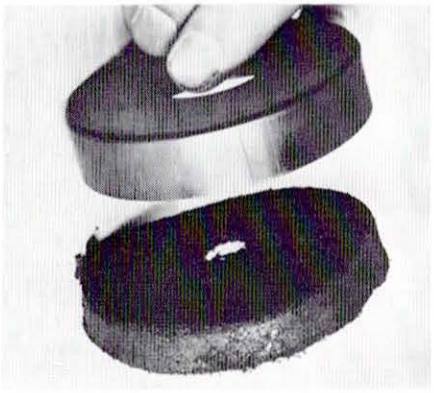
ASF **EXTENDED LIFE® SPRINGS**

# NEW PRODUCTS REPORT



## Propulsion Unit (RA-1)

A 100-hp, high-speed motor and its narrow, lightweight, parallel-gear power train feature Tracpac, an electric drive system for rapid transit cars. The power train permits use of inside, instead of outside, journals to reduce over-all car weight by several tons. Unit can be used with 28-in. wheels and a 6½-ft truck wheel base. Integrated drive-unit electric motor and gear train is hung on truck frame by a resilient mounting. It connects to the axle through a short, hollow shaft which slips over axle and bolts to a resilient coupling, the connection of which is wide enough to act as a two-point suspension. Axle coupling, a separate component, consists of two large, circular rubber elements bonded to outer and inner steel members. Output torque of the gear train is transmitted from outer steel members through rubber elements to the central steel hub pressed on axle. A resilient side-mounted arm gives stability to drive by limiting force acting on axle coupling and lateral displacement at frame hanger. *Westinghouse Electric Corp.*

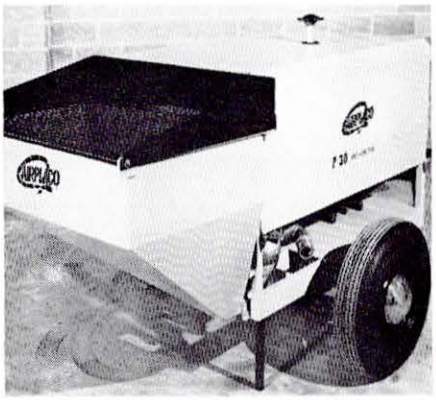


## Car-Door Packing (RA-2)

To overcome failures of leather cups used in pneumatic door engines on subway cars of the BMT, NYCTA, special synthetic cup packings were tried on one car. After two years' service, cups are said to have looked almost new, with no wear or loss of material. The cups work in air, oil, water, and water-base, fire-resistant hydraulic fluids. Temperature range is -20 to 250 deg F; pressure rating, 3,000 psi. *E. F. Houghton & Co.*

## Rubber Base Coatings (RA-3)

Protexior chlorinated rubber coatings, primer, intermediate and top coat, are for the protection of metal and concrete exterior surfaces within temperature range of −40 to +150 deg F. They may be applied to five-mil thickness by brushing or spraying either with airless or atomizing spray equipment. Coatings are said to resist alkalies, acids, inorganic salts, alcohol, mineral oils and fresh or salt water. *Dearborn Chemical Co.*



## Concrete Pump (RA-4)

A machine, designated Model P-30 Uni-Cretor, is available for placing concrete having aggregate up to ½ in. in size. This unit, working at pressures up to 350 psi, is said to be capable of horizontally pumping a sand-cement mix and mortar and grout as far as 300 feet. The P-30 has a production rate up to 25 cu yd per hr, depending on the design of the mix and the elevation to which it is being pumped. *Air Placement Equipment Co.*



PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS ADVERTISED ON PAGES 2 3 4 6 10 13 24-25 26 27 28-29 30 34-35 36 39 43 44

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGES 31 and 32 MARKED RA-1 RA-2 RA-3 RA-4 RA-5 RA-6 RA-7 RA-8

NAME ..... TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... ZONE..... STATE.....

4/6/64

PUT POSTAGE HERE

RAILWAY AGE WEEKLY
30 CHURCH ST.
NEW YORK, N.Y. 10007
READERS' SERVICE DEPT. (Attention George Johnson)

# NEW PRODUCTS REPORT

## Car Identifier (RA-5)

A new system for automatically identifying moving railroad cars has been successfully tested and is now being offered to railroads. Equipment for each wayside location will cost about $5,000. Each freight car tag sells for $5.

Three elements make up the ACI system: the Dezignator unit, mounted on the bottom of each car, contains piezoelectric elements which establish the code for each car. A pick-up unit is mounted on the ties between the rails. It holds antennas which receive signals from passing cars, moving in either direction at speeds up to 60 mph.

When the Dezignator unit on the moving car enters the field of the pick-up unit, the signal from the transmitting antenna is picked up by the receiving antenna only during the brief instant that the variable frequency signal on the transmitting antenna is at the resonant frequency of the piezoelectric element in the Dezignator unit. Then the electric circuit is completed, and impulses are returned to the wayside station, where they are decoded and punched on tape or other output device for recording. *General Electric.*

## Wayside Controls (RA-6)

A wayside control system designed for use with existing or new, rapid-transit systems permits single cars or trains to be automated to almost any degree desired. Wayside controllers at each station, under monitoring control of a central supervisory and control computer station, automatically regulate train speed, start and stop the train, open and close doors, announce trains, perform all supplementary functions needed for safety and service, and otherwise monitor train performance. The supervisory and control center feeds major operating instructions to, and, receives feedback information from, the wayside stations.

Controls for dispatcher use in system operation and for two-way voice communication with wayside stations, train attendants and passengers face the monitoring display. Logging typewriters record schedules deviations, excessive stop time, corrective actions, etc. Communication with trains is over an inductive FM carrier link superimposed on the respective section of track wire used for communication between wayside control stations and trains. *Westinghouse Electric Corp.*

## PA System (RA-7)

A new type of public-address system will incorporate a controlled delay in the reproduction of sound in the various parts of an auditorium so that the reproduced sound arrives in phase with the direct sound. Directive line-source loudspeakers and carefully regulated power will be used to localize the area served by each loudspeaker and to limit the spillover of sound into adjacent areas.

The sound is first inscribed on magnetic tape wrapped around a drum rotating at 80 revolutions per minute. Five play-back heads spaced around the drum provide 5 lengths of delay, with the maximum equaling the natural delay occurring to a direct sound wave traveling the length of the wave. By supplying each loudspeaker with sound delayed by the appropriate interval, the reproduced sound and the direct sound will arrive in phase in every part of the auditorium. On every revolution of the drum, an erase head following the reproducing heads will wipe the drum clean of sound in preparation for the next recording. *International Telephone & Telegraph Co.*

## Communications Link (RA-8)

The new IBM 7740 communication control system, operating alone or linked to a computer, can speed the flow of messages and data among many widely dispersed points. All information transmitted from a sending location to one or more receiving points in the network first passes through the 7740, which checks it for errors, logs it and routes it to its destination.

The 7740's operation is completely automatic. Controlled by a program stored in its own magnetic core storage, the system eliminates manual handling of messages or tapes at a communications center. The 7740 can handle a wide variety of communications codes.

Outgoing messages from the computer are returned to the 7740, which retranslates them into communication code and places them on the appropriate line for transmission to their destination. Priority handling of incoming messages requiring immediate attention is controlled by the 7740's program. *International Business Machines Corp.*



RAILWAY AGE WEEKLY
30 CHURCH ST.
NEW YORK, N.Y. 10007
READERS' SERVICE DEPT. (Attention George Johnson)

PUT POSTAGE HERE

Reprint Order Form

I understand reprints of articles in this issue may be ordered in quantities of 250 or more.

Please quote price on ..... reprints of the article(s) beginning on page(s) .....

Name .....
Office .....
Home Address .....
City .....
Company .....
Department .....Title .....

4/6/64

Gordon Huffines
C&O

Dwight G. Wood
CSS&SB

Darrell D. Fisher
Milwaukee

Ralph F. Timbers
PRR

Franklin Way
P&N

Thomas G. Lynch
P&N

# PEOPLE IN THE NEWS

**BESSEMER & LAKE ERIE—DULUTH, MISSABE & IRON RANGE—ELGIN, JOLIET & EASTERN—UNION.—E. Gard Slocum** appointed director management services, Pittsburgh, Pa. Mr. Slocum was formerly assistant to president, **Elgin, Joliet & Eastern,** Chicago.

**CENTRAL OF GEORGIA.—W. M. Whitehurst,** superintendent, communications and signals, Macon, Ga., retired March 15. The Communications Section and Signal Section were separated on March 16. **V. L. Cosey,** assistant superintendent communications and signals, Macon, promoted to assistant signal superintendent, with jurisdiction over the signal organization. **G. C. Chester,** communication engineer, Macon, will have jurisdiction over the communications organization. **D. R. House** remains signal engineer. Title of **L. J. Butler,** supervisor of communications and signals, Columbus, Ga., changed to supervisor of signals, reporting to Mr. Cosey. Title of **O. B. Skipper,** supervisor communications and signals, Columbus, changed to supervisor of communications, reporting to Mr. Chester. Title of **I. J. Stephens,** supervisor communications and signals, Macon, changed to supervisor of signals, reporting to Mr. Cosey. **R. H. Varner's** title changed to assistant supervisor of signals.

**CHESAPEAKE & OHIO.—Gordon Huffines** appointed manager of communications services, public relations department, Cleveland. Mr. Huffines was formerly publisher of **International Railway Journal** in London and associate editor of **Railway Age** in Washington, D.C.

**D. C. Teal,** superintendent water supply, Huntington, W. Va., retired Feb. 29, after more than 39 years of service.

**CHICAGO SOUTH SHORE & SOUTH BEND.—Dwight G. Wood,** general passenger agent, advanced to passenger traffic manager, to succeed **R. E. Jamieson,** retired (RA, Feb. 3, p. 34). Mr. Wood's successor is **Harold W. Carlson,** assistant general passenger agent.

**GREAT NORTHERN.—Charles G. Alexander** appointed general agent, passenger department, San Francisco, to succeed **Arthur L. Scott,** assistant general passenger agent, who retired March 31 after 51 years' service. **Donald W. Teed** named general agent, passenger department, Vancouver, B.C., replacing **Harry Clark,** retired.

**LEHIGH VALLEY.—Charles P. Turner,** superintendent locomotive equipment, Sayre, Pa., appointed chief mechanical officer there, succeeding **W. E. Lehr,** named chief mechanical officer, **Pennsylvania,** Philadelphia.

**MILWAUKEE.—Darrell D. Fisher,** assistant superintendent car department, Milwaukee, Wis., appointed superintendent car department there.

**E. Paul Schilling,** district freight and passenger agent, Philadelphia, named general agent passenger department, New York, succeeding **R. E. Brazda,** retired.

**George V. Budrean** appointed public relations representative, Chicago.

**NEW HAVEN.—J. F. Keefe,** research and advertising assistant, New Haven, Conn., appointed manager, research and advertising, succeeding the late **R. H. Forsythe. H. C. Hall** named advertising assistant.

**NEW YORK CENTRAL.—O. L. Easton,** general superintendent of shops, Beech Grove, Ind., appointed manager scrap & reclamation plant, Ashtabula, Ohio, succeeding **R. T. Tomlinson,** named superintendent of shop, Beech Grove, with full responsibility over all car shop operations. **F. J. Donough, Jr.,** appointed production manager, with responsibility for freight and passenger car production. Abolished positions of general superintendent of shops and superintendent of shops—car.

**NORTHERN PACIFIC.—R. W. Humphreys,** special assistant to general manager, Seattle, Wash., named assistant to vice president of operations, St. Paul, Minn., succeeding **R. K. Mossman,** named superintendent, Fargo division (RA, March 23, p. 34). **Daniel Peinovich,** assistant superintendent, Tacoma division, Seattle, succeeds Mr. Humphreys. **W. E. Buckley,** trainmaster, Duluth, Minn., succeeds Mr. Peinovich. **G. G. Richardson,** roadmaster, Glendive, Mont., succeeds Mr. Buckley.

**PENNSYLVANIA.—Ralph F. Timbers** appointed manager, advertising, Philadelphia, Pa. Formerly advertising assistant, Mr. Timbers will coordinate all advertising activity of the PRR.

**A. Paul Funkhouser,** assistant vice president, Philadelphia, appointed assistant vice president—coal traffic. He will direct the sales, marketing, rate making and other activities related to the transportation of coal.

**William E. Lehr,** chief mechanical officer, **Lehigh Valley,** Sayre, Pa., appointed chief mechanical officer, **Pennsylvania,** Philadelphia, succeeding **R. E. Franklin,** named vice president—assistant to president, **Southern System** line companies and **Central of Georgia,** at Washington, D. C.

**PIEDMONT & NORTHERN.—Franklin Way,** vice president and general manager, Charlotte, N.C., elected president, succeeding **W. I. Rankin,** who retired March 25 after more than 49 years of service. **Thomas G. Lynch,** director of industrial development and public relations, elected vice president—traffic and industrial development.

**ROCK ISLAND.—James St. Andrew,** district traffic representative, Hutchinson, Kans., named district freight and passenger agent, Oklahoma City, Okla., to succeed **William E. Jones, Jr.,** appointed general agent, Kansas City, Mo. **William F. Hartigan,** traffic representative, Kansas City, replaces Mr. St. Andrew.

**Harold C. Van Gorder,** chief clerk to the freight traffic manager, named assistant to the freight traffic manager, Chicago.

**SANTA FE.—C. A. Watson,** purchasing agent and storekeeper, Coast Lines, San Bernardino, Calif., named general storekeeper, Topeka, Kans., to succeed **A. M. McHenry,** who retired Apr. 1 after more than 44 years' service. Mr. Watson's successor is **A. F. Marth,** division storekeeper, Albuquerque, N. M., who in turn is replaced by **W. F. Heustis,** transferred from Argentine, Kans. **K. L. Knickerbocker,** material supervisor in the general storekeeper's office, Topeka, replaces Mr. Heustis.

**Edmund L. Petersen,** assistant to general passenger traffic manager, appointed assistant general passenger traffic manager, Chicago.

**W. J. Rodgers** named passenger traffic manager, Topeka, Kans., succeeding **George F. Sherman,** who retired March 31 after more than 48 years of service. **E. W. Saylor** appointed manager, rates and divisions, passenger traffic staff, Topeka.

**SEABOARD.—James L. Howe, III,** of the law firm of Edmunds, Baldwin & Graves, Lynchburg, Va., joined the Seaboard on March 16 as an attorney in the law department.

**SEATRAIN LINES.—Gerardo Mauriz, Jr.,** has joined Seatrain as manager, Puerto Rican Division, succeeding **William O. Gohlke,** recently appointed general manager (RA, March 23, p. 35).

**SOUTHERN.—Davis H. Beck,** passenger traffic manager, Atlanta, Ga., retired after 38 years of service.

**Merle V. Cloud,** division freight agent, Durham, N. C., appointed assistant general freight agent, Winston-Salem, N. C. **Philip E. Provins,** commercial agent, Baltimore, Md., appointed division freight agent, Durham, succeeding Mr. Cloud. **Forest W. Von Canon, Jr.,** district freight agent, Charleston, S. C., promoted to executive general agent there, succeeding **Frank B. Birthright,** retired after more than 38 years of service.

**R. E. Franklin,** chief mechanical officer, **Pennsylvania,** Philadelphia, appointed vice president—assistant to president, **Southern** system line companies and **Central of Georgia,** with headquarters at Washington, D.C.;

# WHITING ANNOUNCES
# *The New* 7 TM TRACKMOBILE

## It Can Handle a String of Loaded Rail Cars...and that's not all—

The new model 7 TM Trackmobile is the most powerful of all. (We should know. We've built them all). 18,000 lbs. of drawbar pull means that the 7 TM can easily pull a string of fully loaded rail cars in its regular routine.

The extra beef found in the 7 TM means you have the power when you need it for the big jobs. It also has the endurance that gives you years of low maintenance operation.

Trackmobile is the rail car mover that can't be bottled up. It pulls cars into a plant then lowers its rubber-tired road wheels to proceed across tracks to the next job.

The savings—both in initial cost and in daily operation—with a Trackmobile are truly important. Let us tell you about them.

*Write Whiting Corporation*
*15603 Lathrop Ave., Harvey, Illinois.*
*In Canada: Whiting Corp., (Canada) Ltd.,*
*351 Alexander Street,*
*Welland, Ont., Canada.*

97 OF AMERICA'S "FIRST HUNDRED" CORPORATIONS ARE WHITING CUSTOMERS

TRACKMOBILES®

WHITING®

MANUFACTURERS OF CRANES; TRAMBEAM HANDLING SYSTEMS; PRESSUREGRIP; TRACKMOBILES; METALLURGICAL, RAILROAD AND SWENSON CHEMICAL PROCESSING EQUIPMENT.


Mr. Franklin will assess all areas of operations, including programs, costs, methods and standards. He will directly represent the president in such matters.

**TEXAS & PACIFIC.**—**M. M. Hennelly** elected vice president—law, St. Louis.

**UNION PACIFIC.**—**Kenneth A. Leger** appointed assistant superintendent of transportation and **Randle Shumate** named trainmaster, both with headquarters at Omaha.

**Louis G. Stahl,** assistant traffic manager, Seattle, retires Apr. 1 after 49 years' service. **Roy A. Howland** named assistant traffic manager, Portland, Ore. **W. H. Ahlgrim, Jr., J. E. Southworth** and **Armond C. Taylor** named general traffic agents, Seattle, Aberdeen and Yakima, Wash., respectively. **W. C. Collier** appointed general freight and passenger agent, Seattle.

## Supply Trade

Effective April 1, the **Transportation Equipment Division of American Steel Foundries Inc.** discontinued its St. Paul, Minn., sales office. **Gordon L. Kibbey,** district sales manager for the office, will handle St. Paul area sales from ASF's Chicago general office.

**Griffin Wheel Co.,** subsidiary of AMSTED Industries, Chicago, has completed construction of a plant in Bessemer, Ala., to produce steel wheels for railroad freight cars. The plant will serve the Southeastern railroads.

**Ray T. Gutz,** vice president—marketing, **True Temper Corp.,** Cleveland, Ohio, has been promoted to the newly created position of executive vice president.

**Thermo King Corp.,** Minneapolis, Minn., has announced appointment of **Dan Porter** as sales manager, eastern division, Washington, D.C. area, and **Dale Palm** as sales manager, western division, Denver, Colo.

**Edward B. Stanton,** formerly with Franco Railroad Contractors in Spokane, Wash., has been named to head the new railroad sales division at **Page & Page Co.,** Portland, Ore.

**Joseph A. Cademartori** has been named vice president, manufacturing, **Nordberg Manufacturing Co.,** Milwaukee, Wis., and **Willard C. Jackson** has been appointed manager, manufacturing. **A. G. Hall,** works manager, has retired.

**Kebby Microwave Corp.,** a new company, will design and manufacture microwave and other communications equipment for industrial users, including railroads. **Maury H. Kebby,** president, was formerly chief engineer for commercial products, Lenkurt Electric Co. **Edward F. Tuck,** vice president, was a microwave development manager for Lenkurt. **Albin R. Meier,** marketing manager of the new company, was technical promotion manager for Lenkurt.

## OBITUARY

**Omer S. Lewis,** 91, who retired in 1943 as general freight traffic manager, **Baltimore & Ohio,** died March 28 at his home in Baltimore, Md.

**W. D. Simpson,** 74, who retired in 1957 as chief engineer, **Seaboard Air Line,** died March 20 in Duke University Hospital, Durham, N.C.

# LETTERS

## Optimism premature?

Washington

To the Editor:

The article in the March 23 issue, "Year 1962 may have been a turning point," for the long-beset common carriers could easily bring a false sense of security to the railroad industry and create the impression that they need no longer continue the battle for the equality of governmental treatment which has so long been denied them.

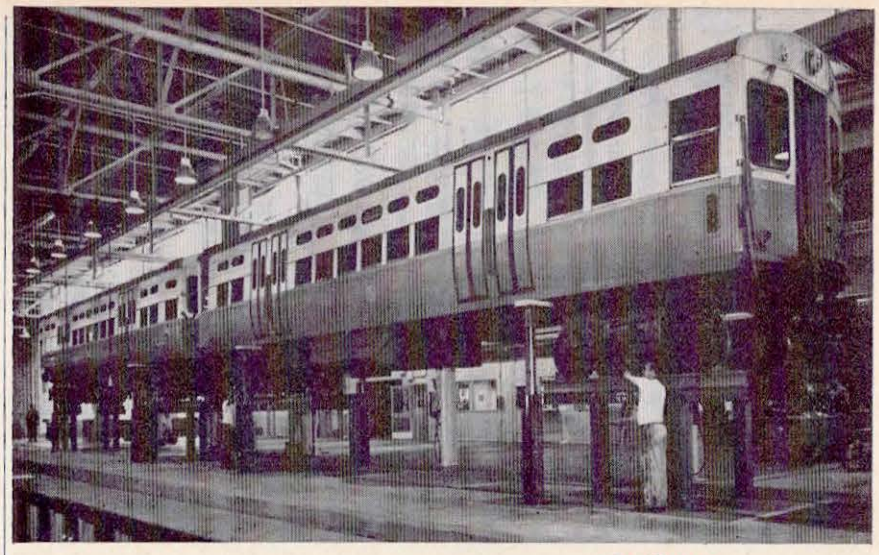
No one should be misled by reading that "rail, truck and water common carriers as a group increased their relative share of total intercity freight traffic for the first time since 1955." A more realistic appraisal of the situation is that, of the common carriers referred to, the rails alone suffered a drastic decline in their share of intercity freight traffic from 1955 to 1961. In contrast, the truck and water common carriers showed substantial gains.

A close look at the facts will disclose that during the period cited, 1955 to 1962, the railroad share of the total intercity ton-miles declined from 49.5% to 43.1%, while the ICC regulated motor carrier share of intercity ton-miles increased from 6.5% to 8.0% and the ICC water carriers from 2.6% to 2.9%. During this period the entire decline of the common carriers and the "plight of the common carriers" was actually the decline in railroad traffic, and nothing else. The apparent "turning" point in 1962 was achieved because for the first time since World War II the railroads managed to maintain the same percentage of the total intercity ton-miles as in the preceding year. A slight gain in 1962 over 1961 by the motor carriers and the water carriers was sufficient to indicate a gain for the common carriers as a group of one-tenth of one per cent.

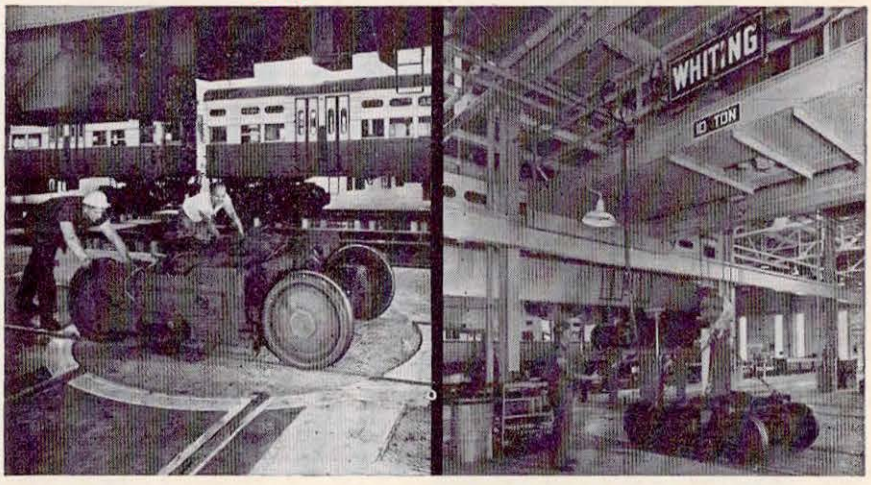
Railroad men should be proud to know that they have arrested the decline in their share of the total, but should not be led to think this small success is necessarily permanent. As long as present inequities exist, the railroads, while continuing efforts to provide better, more economical service, must also continue aggressively to seek equality of opportunity.

*Philip A. Hollar*
*Vice President—Assistant to President*
*Association of American Railroads*

[We agree with Mr. Hollar. Traffic trends do not yet justify exultation. But if railroads can do this well despite handicaps, how they'd thrive under fair treatment!—Editor]

CARS GO UP—COSTS COME DOWN




**HOW NEW WHITING INSTALLATION CUTS CTA REPAIR BILLS**

The new Congress Terminal of Chicago Transit Authority is beautiful to see and economical to operate. It incorporates the very best and most efficient in appointments and facilities.

Maintenance and repair of trucks, for instance, is accomplished on a production line basis. Four Whiting 4-screw hoists lift two semi-permanently coupled cars five feet into the air, where each car body is held solidly in place by two pair of Whiting body supports. Trucks are then lowered and rolled onto Whiting electric turntables which position them for movement onto repair tracks. Whiting overhead cranes are used for any lifting required in service operations. The entire Whiting installation is push button controlled and guarded by fail-proof safety devices.

Cutting costs in terminals and repair stations comes naturally to Whiting railroad engineers. Their wealth of professional and practical experience is available to you on request. Just contact your nearest Whiting office or write us direct. *Whiting Corporation, 15603 Lathrop Avenue, Harvey, Illinois. In Canada: Whiting Corporation (Canada) Ltd., 350 Alexander Street, Welland, Ontario, Canada.*

97 OF AMERICA'S "FIRST HUNDRED" CORPORATIONS ARE WHITING CUSTOMERS

**WHITING**

MANUFACTURERS OF CRANES; TRAMBEAM® HANDLING SYSTEMS; PRESSUREGRIP®; TRACKMOBILES®; METALLURGICAL, RAILROAD, AND SWENSON CHEMICAL EQUIPMENT

RAILROAD EQUIPMENT

**This is one of more than 2,000 cars Norfolk and Western is equipping with Brenco *crown-taper* Roller Bearings**

BRENCO INCORPORATED

*Petersburg, Virginia*

BRENCO BEARINGS

# MARKET OUTLOOK

## Carloadings slip

Loadings of revenue freight in the week ended March 28 totaled 528,157 cars, the Association of American Railroads announced on April 2. This was a decrease of 8,899 cars, or 1.7%, compared with the previous week; a decrease of 30,456 cars, or 5.5%, compared with the corresponding week last year; and a decrease of 36,941 cars, or 6.5%, compared with the equivalent 1962 week. Ton-miles generated by carloadings in the week ended March 28 are estimated at 12.0 billion tons, a decrease of 1.7% below the corresponding week of 1963 but an increase of 2.0% above the 1962 week.

REVENUE FREIGHT CARLOADINGS

For the week ended Saturday, Mar. 28

| District | 1964 | 1963 | 1962 |
|---|---|---|---|
| Eastern ..... | 78,640 | 80,817 | 83,973 |
| Allegheny .... | 90,948 | 96,750 | 99,735 |
| Pocahontas ... | 51,144 | 52,537 | 53,897 |
| Southern ..... | 111,856 | 117,428 | 116,059 |
| Northwestern . | 54,036 | 59,854 | 58,585 |
| Central Western | 105,515 | 111,280 | 112,941 |
| Southwestern . | 36,018 | 39,947 | 39,908 |
| Total Western Districts .... | 195,569 | 211,081 | 211,434 |
| Total All Roads | 528,157 | 558,613 | 565,098 |
| Commodities: | | | |
| Grain and grain products .... | 43,666 | 53,781 | 52,663 |
| Livestock ..... | 2,272 | 3,314 | 3,531 |
| Coal ..... | 102,919 | 105,693 | 100,967 |
| Coke ..... | 8,570 | 8,214 | 8,584 |
| Forest Products. | 37,543 | 36,333 | 38,700 |
| Ore ..... | 17,146 | 16,319 | 19,560 |
| Merchandise l.c.l. | 13,403 | 19,004 | 24,858 |
| Miscellaneous . | 302,638 | 315,955 | 316,235 |
| Mar. 28 ..... | 528,157 | 558,613 | 565,098 |
| Mar. 21 ..... | 537,056 | 534,998 | 555,873 |
| Mar. 14 ..... | 521,250 | 517,209 | 545,434 |
| Mar. 7 ..... | 518,474 | 517,757 | 525,696 |
| Feb. 29 ..... | 529,476 | 532,817 | 528,554 |
| Cumulative total, 13 weeks ... | 6,794,408 | 6,599,112 | 6,902,062 |
| Estimated revenue ton-miles (millions) 13 weeks ... | 154,900 | 144,700 | 144,200 |

**PIGGYBACK CARLOADING.**— U. S. piggyback loadings for the week ended Mar. 21 totaled 16,946 cars, compared with 15,700 for the corresponding 1963 week. Loadings for 1964 up to Mar. 21 totaled 189,397 cars, compared with 170,450 for the corresponding period of 1963.

**IN CANADA.**— Carloadings for the seven-day period ended March 14 totaled 69,033 cars, compared with 68,191 for the previous seven-day period, according to the Dominion Bureau of Statistics.

| | Revenue Cars Loaded | Total Cars Rec'd from Connections |
|---|---|---|
| Totals for Canada | | |
| March 14, 1964 ..... | 69,033 | 26,347 |
| March 14, 1963 ..... | 60,847 | 24,089 |
| Cumulative Totals | | |
| March 14, 1964 ..... | 721,139 | 266,585 |
| March 14, 1963 ..... | 630,998 | 233,348 |

## FREIGHT-TRAIN CARS

► *Baltimore & Ohio.*—Leased 217 50-ton, 40½-ft box cars from United States Railway Equipment. Eighty cars have been delivered, and deliveries are continuing at the rate of 20 per week.

► *Erie Lackawanna.*—Ordered 113 cars at a cost of $2 million. Included are 63 box cars from Greenville Steel Car, with deliveries to start in July; 25 covered hopper cars from ACF and 25 covered hopper cars from General American, with delivery in the fourth quarter.

► *New York Central.*—Ordered 40 70-ton, 86½-ft, auto-parts box cars from Greenville Steel Car at a cost of $1.4 million. Delivery will begin in June. Cars will be equipped with cushion underframes and aluminum doors.

► *Rock Island.*—Placed orders for 289 special freight cars. Pullman-Standard will build 235 70-ton box cars equipped with roller bearings, cushioned underframes and belt loading devices, and five 100-ton 50½-foot box cars with the same equipment. Thrall Car will build 30 70-ton, 86½-foot box cars with roller bearings and load retaining devices; 14 90-ton, 60-foot 10-inch box cars, and five 100-ton, 60-foot 9-inch box cars equipped with roller bearings, cushion underframes and load retaining devices. The cars, costing $5,350,000, will all be delivered this year.

► *Trailer Train.*—Directors authorized acquisition of 1,230 flat cars, of which 897 have now been ordered. Included: 430 60-ft cars from ACF, equipped with FreightMaster hydraulic draft gear, for transportation of new-auto frames; 408 85-ft piggyback cars (200 from General American, 100 from Bethlehem Steel, 98 from ACF and 10 from Pullman-Standard); and 59 flats to be equipped with auto racks (42 from Pullman-Standard and 17 from Bethlehem Steel).

► *United Electric Coal Co.*—Ordered 20 70-ton open-top hopper cars from U.S. Railway Equipment for delivery in second quarter 1964.

► *Bad Order Ratio 2.0% Lower Than Last Year.*—Class I roads on March 1 owned 1,506,749 freight cars, 37,905 less than on March 1, 1963, according to AAR report summarized below. Bad order ratio was 2.0% lower than on March 1, 1963.

| | *March 1, 1964* | *March 1, 1963* | *Change* |
|---|---|---|---|
| Car ownership ..... | 1,506,749 | 1,544,654 | —37,905 |
| Waiting repairs ..... | 95,323 | 128,286 | —32,963 |
| Repair ratio ..... | 6.3% | 8.3% | — 2.0% |

## NEW FACILITIES

► *Louisville & Nashville.*—Ordered 74 IBM 1050 transmission units to make possible instant delivery of data from system offices direct to the computer center at Louisville. L&N will also replace its IBM 7070 computer with an IBM 7010 unit and will upgrade two IBM 1401 units to IBM 1460 units. The result will be a doubling of the capacity and effective speed of the computer complex.

► *Norfolk & Western.*—Ordered one standard 28-cylinder model 32 retarder from Union Switch & Signal division of WABCO.

► *Pennsylvania.*—Began work on a $1.1 million track and bridge construction project at its Enola, Pa., classification yard. Work is also going forward on a $500,000 yard at Shiremanstown, Pa., which will have a capacity of 700 cars on 13 tracks.

# YOU OUGHT TO KNOW

**Santa Fe mergers favored:** ICC approval of merger into the Santa Fe of three of its subsidiaries has been recommended by Examiner Elden J. Miller. The subsidiaries are Gulf, Colorado & Santa Fe, Panhandle & Santa Fe, and Kansas City, Mexico & Orient of Texas. The examiner's proposed report, in F. D. No. 22456, advises the Commission that its approval of the proposed mergers should be subject to the usual open-route and employee-protection conditions.

**Car rentals assailed:** Southern's complaint against the multi-level per diem plan (RA, Mar. 30, p. 7) reflects that road's dissatisfaction with car rentals which result from application of the plan. The complaint, as it says, "does not challenge the multi-level rates for value brackets to which freight cars are assigned in accordance with correct ledger values." It does, however, assail various factors in the multi-level formula which cause Southern to pay "excessive per diem charges" to owners of certain freight cars and to receive "inadequate compensation" for use by other roads of its cars. Southern is the only road which has filed such a complaint with the ICC. Meanwhile, it has accepted the rental plan because there was "no reasonable alternative." Only five roads have refused to accept the plan—Boston & Maine, New Haven, Long Island, Maryland & Pennsylvania, and New Jersey & New York.

**February fines:** Twenty-nine railroads paid fines totaling $32,000 in February for 137 violations of the Safety Appliance, Hours of Service, Accident Reports and Explosives and Combustibles acts. Biggest payers, according to the ICC: Southern Pacific, $3,205; Delaware & Hudson, $3,000; Milwaukee, $2,950.

**New statistical manual:** The Railway Statistical Manual is being revised by the Committee on Costs and Statistics of the AAR's Accounting Division. The revision will be a comprehensive one, but the manual's present style and size will be preserved. The new edition will cost about $4.50.

**Hovertrain:** The Hovercraft Co. (England) is testing a six-ton prototype of a car which reportedly can move frictionless over concrete rail at speeds up to 400 mph. The "Hovertrain" is a 24-ft steel car suspended one-half inch above an inverted T-shaped track by eight air cushions. Hovercraft's immediate interest is development of a 100-plus passenger model and a double-decker version for both passengers and freight.

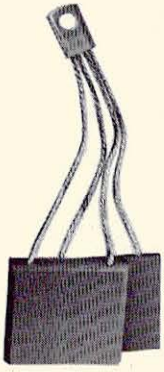
**ICC told it errs:** Examiner Richard S. Ries has advised the ICC that it has been wrong for some 28 years in holding that the Interstate Commerce Act's Section 4 applies to joint rail-motor rates. The advice came in a proposed report in No. 34254. That's a case which was instituted to pass on a New York Central petition for a declaratory order determining whether relief from Section 4's long-and-short-haul clause was required to maintain Plan V piggyback rates which are lower for long hauls than for shorter hauls over the same rail-motor routes. The examiner recommends a finding that such relief is not required, joint rail-motor rates being subject only to the Act's Part II, which has no provision like Section 4.

**NYC plugs a leak:** New York Central's commuter service between Chicago and Elkhart, Ind., ended April 1. Only three trains remained of the 18 that 10 years ago plied between Chicago and such suburbs as Whiting, Gary, South Bend and Elkhart. NYC's $90,000 loss last year on the three trains was enough, ruled the ICC, to offset any inconvenience to the 500 commuters who used the trains. In any case, they'll be taken care of by the Chicago South Shore & South Bend, whose tracks parallel those of NYC between Chicago and South Bend.

**New transit job:** C. B. Ramsdell has been appointed to the newly-created position of manager—mass transit, Union Switch & Signal Division of Westinghouse Air Brake Co. He will direct the design, sales and delivery of systems or subsystems for the mass-transit market, reporting directly to the vice president and general manager of US&S. Mr. Ramsdell was formerly employed by General Electric in several responsible positions in engineering, marketing, manufacturing and general management.

## Current statistics

| | |
|---|---|
| Net income, estimated | |
| 12 mos., 1963 | $651,000,000 |
| 12 mos., 1962 | 572,000,000 |
| Carloadings, revenue freight | |
| 13 wks., 1964 | 6,794,408 |
| 13 wks., 1963 | 6,599,112 |
| Freight cars on order | |
| Feb. 1, 1964 | 37,636 |
| Feb. 1, 1963 | 17,565 |
| Freight cars delivered | |
| 1 mo., 1964 | 5,253 |
| 1 mo., 1963 | 2,445 |
| Serviceable cars | |
| Mar. 1, 1964 | 1,411,426 |
| Mar. 1, 1963 | 1,416,368 |



# Best buy!

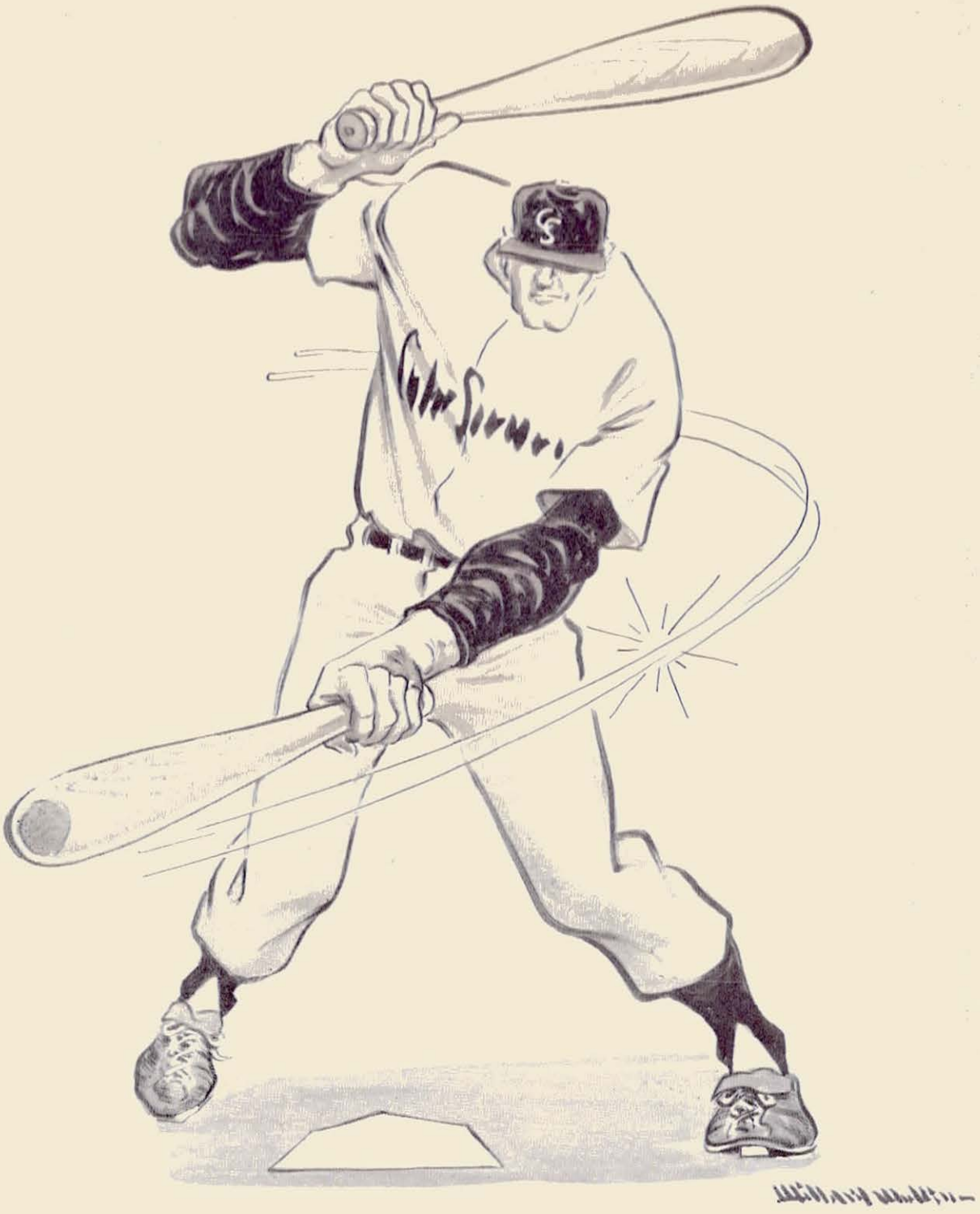
**YOUR G-E SALES ENGINEER KNOWS WHY**

Carbon brushes are very similar but there are differences—differences that show up in performance. And, your sales engineer knows which brush is best for your General Electric rotating equipment. In making his selection, he draws upon extensive studies of operating data and railroad field tests as well as G.E.'s more than two generations of experience in motor and generator design. His prime concern is the life and performance of General Electric equipment.

Talk over your brush requirements with your nearest General Electric Transportation Renewal Parts Sales Engineer. You have a lot in common. Who else knows more about G-E equipment than you, the user; and General Electric, the manufacturer? 121-16

GENERAL ELECTRIC

GENERAL ELECTRIC
PROGRESSLAND
A WALT DISNEY PRESENTATION
AT THE NEW YORK WORLD'S FAIR



## SWITCH HITTER!

The ability to hit effectively from both sides of the plate makes a "switch hitter" a valuable asset to any team. C-100 Motor Oil can "switch hit" for you, because it's equally effective in high-speed diesel and in gasolene equipment.

Recently boosted in protective power, C-100 meets the new Military Spec. MIL-L-2104B. It is highly recommended for use in "on track" heavy duty, high-speed diesel applications (Budd cars, reefers, air conditioners, etc.)—and, "off track" diesel and gasolene engines.

C-100 Motor Oil's multi-purpose characteristics simplify inventory, prevent misapplication, cut maintenance and stock costs.

For more information about C-100 Motor Oil, the multi-purpose "switch hitter", and other top quality Cities Service Railroad products, call your nearest Cities Service office; or write: Cities Service Oil Company, Railroad Sales Department, 60 Wall Street, New York 5, N. Y.

**CITIES SERVICE**

QUALITY PETROLEUM PRODUCTS
FOR THE NATION'S RAILROADS

## BOOKS FOR THE RAILROAD FINANCIAL OFFICER

**CAPITAL SOURCES**

**by William Hanson**

This unique volume provides practical guidance to raising capital for business purposes. This is the most exhaustive directory of the sources of capital funds in America today. Banks, pension funds, underwriters, insurance companies, foundations, factors, commercial credit companies, and many others. 283 pp.; 6 x 9; $15 per copy

**INTERNATIONAL INVESTMENT**

**by Robert A. Gilbert**

A timely and authoritative survey of the field of international investment—vital to the transportation industry in America. This book, for the first time, makes available complete descriptions of the stock market indexes of 11 foreign countries, together with the detailed record of their fluctuations, for a decade or more, in relation to the Dow-Jones Industrial Average. 256 pp. 6 x 9. $20

**THE STRATEGIC INVESTOR**

**by Douglas H. Bellemore**

This book is designed for the requirements of the intelligent individual who wishes to persue a common sense approach to investment and building of capital funds. Practical advice concerning the management of the individual investment portfolio, written by a registered investment counselor. 394 pp. 6 x 9. $7.50

*ORDER FROM*

**SIMMONS-BOARDMAN BOOKS**

DEPT. R.A.—4-6
30 Church St. New York, N. Y. 10007



## REPRINTS

Reprints of articles appearing in this issue are available in minimum quantities of 250. For information on prices, write to George Johnson, Railway Age, 30 Church Street, New York 7, N.Y. 10007.



### Advertising Sales Department

**New York, N. Y. 10007,**
30 Church St., WOrth 4-3060
Duane C. Salisbury—executive vice president; director of sales
J. S. Vreeland—vice president; sales manager
W. A. Cubbage—district manager
Elliot A. Barrows—district manager

**Chicago, Ill. 60602,**
22 W. Madison St.,
RAndolph 6-0794
J. R. Thompson—vice president;
K. F. Sheeran—regional vice president;
Walt W. Hutchinson—district manager

**Cleveland, Ohio 44115,**
1501 Euclid Ave.,
MAin 1-4455
H. H. Melville—vice president;
C. J. Fisher—district manager

**Pittsburgh, Pa. 15219, Suite 203,**
Carlton House
GRant 1-8186
C. J. Fisher—regional vice president

**Atlanta, Ga. 30309,**
22 Eighth St., N. E.,
TRinity 2-6720—J. S. Crane

**Dallas, Tex. 75219,**
3915 Lemmon Ave.,
LAkeside 1-2322
Joseph Sanders

**Los Angeles, Cal. 90017,**
1336 Wilshire Blvd.
HUbbard 3-8414
Fred Klaner, Jr.

**San Francisco, Cal. 94111,**
916 Kearny St.
GArfield 1-7004
Lewis Vogler & Co.

**London S. W. 1, England**
TRAfalgar 6318
67/68 Jermyn St., St. James's
Max F. Holsinger, Ian Goulden; A. T. Chapman-Purchas; John Thornton

**Paris, 16e., France**
46 Boulevard Exelmans
Michel Lemaire

**Dusseldorf, Germany**
Huttenstrasse 17
Max F. Holsinger;
Dr. D. Heimann; E. Hillerbrand; Herbert Haibt

**Tokyo, Japan**
Sun Gain Shia, Ltd.
Shiba Nikkats Bldg.
13, Shiba Park
Minato-Ku
C. H. Yiu, Managing Director
Telephone: 501-8927


# CLASSIFIED ADVERTISEMENTS


EXCELLENT PER DIEM SALARY AND EXPENSE ALLOWANCE FOR PERIODIC LOCAL ASSIGNMENTS

**NO SELLING**

WANTED:

EX-RAILROAD SUPERVISORY PERSONNEL by supplier of cost-saving, new, PROVEN-IN-SERVICE car handling equipment. Work involves cost and motion surveys of industrial and railroad yards. Most territories open. Write giving details of experience to Box 34, Railway Age, 22 West Madison Street, Chicago, Illinois 60602.

**WANTED**
**100 70-TON**
**HOPPER CARS**
**Built 1940 or later**
MORRISON RAILWAY SUPPLY CORP.
**508 Rand Bldg., Buffalo 3, N.Y.**
Phone Area Code 716 856-5820

**WANTED**

ESTIMATOR—Experienced with car building, modification and repair operations. Plant located in Midwest. Please send complete resume and salary requirements. Box #113, Railway Age, 30 Church St., New York, N.Y. 10007.

WANTED: Civil or General Engineer with Railway maintenance and construction experience for administrative job in the southwest with nationally known contractor. All replies confidential and restricted investigation assured. Box 112, Railway Age, 30 Church Street, New York, N.Y. 10007.

**RECONDITIONED TANK CARS FOR SALE**

7,500-gallon cleaned acid tank cars, 50-ton trucks. Built 1946. Condition excellent. Will pass Interchange. Priced for quick sale.

**ERMAN CORPORATION, INC.**
**332 South Michigan Avenue**
**Chicago, Ill.**

## TRAFFIC MANAGERS

**if your freight cars need speedy, dependable repairs**

Our modern car shops offer fast, efficient, economical repairs, reconditioning and painting. Freight and tank cars of all types. All work to AAR specifications—every job fully guaranteed.

**MORRISON RAILWAY SUPPLY CO.**

Offices: 508 Rand Bldg., Buffalo 14203 Area Code 716-856-5820


## *Advertisers' Index*


Alco Products, Inc. ..... 28-29
American Steel Foundries, Inc. ..... 30
Budd Company, The ..... IFC
Chicago Railway Equipment Company ..... 3
Cities Service Oil Company ..... 40
General Electric Company ..... 39
General Steel Industries & St. Louis Car Company ..... 13
Hayes Track Appliance Company ..... 26
Magnus Metal Division, National Lead Company ..... 10
Miner, Inc., W. H. ..... 6
National Castings Company ..... 27
Shell Oil Company ..... 9
Strick Trailers ..... BC
Symington Division of Symington Wayne ..... IBC
Timken Roller Bearing Company, The ..... 24-25
Union Switch & Signal Division of Westinghouse Air Brake Company ..... 4
Whiting Corporation ..... 34-35

# Courts need education

**Does diversion of traffic from water to rail indicate that national transportation policy is being flouted? Let's find out.**

The Supreme Court wants to see the evidence on the relative economy of competing agencies of transportation—and their comparative importance to the national welfare. Such, at any rate, seems to be a reasonable inference from the Court's decision in the *Mechling Barge Lines vs. U.S.* case (noted briefly in our last week's issue).

In this case the Court reversed a decision by the Interstate Commerce Commission which had approved reduced proportional rates on corn from local points on the Kankakee Belt Line—into Kankakee, Ill., from the west. The rates applied only if the corn were milled in transit and reshipped to the east. The ICC found the rates compensatory (when the proportional rates and those eastward from Kankakee were considered in combination). But the Commission made no finding that the rates gave due regard to "national transportation policy" —and that omission disturbed the Court.

What worried the Court more than anything else, though, was the assertion by opponents' counsel that "the barge lines carried 53% less corn to Chicago in 1963 than they did in 1957." Seemingly, in the view of the Court, if railroads divert traffic from barge lines, that fact raises a question of possible violation of national transportation policy. Of course, if barge lines divert traffic from railroads, the question of national transportation policy does not come up—because the ICC has no authority to regulate rates of bulk agricultural products when moved by water.

The 53% of their corn traffic that the barge lines allegedly lost to the railroads alarms the Court. It was not alarmed that all the barge traffic had been diverted from railroads in the first place—not only the 53%, but the 47% still on the barges.

The complex and costly litigation of such questions would go into the waste-basket, where it belongs, if Congress would enact the pending legislation in the Kennedy transportation program. This legislation would put an end to rate regulation of bulk commodities—which is as economically out-of-date as hoop skirts and diamond-stacked locomotives. But as long as this anachronism is protected by the statute books and the courts, the railroads' rivals—and patrons who have a vested interest in keeping the railroads in regulatory shackles—may be expected to take advantage of it.

While the Court in this case raised the "national transportation policy" issue in behalf of a water carrier—a little less than a year ago it injected this same question into its decision in the Sea-Land and Seatrain cases. At that time it struck down an ICC decision requiring the railroads to maintain "umbrella" rates to protect these water carriers. In other words, it does not appear that the Court (so far) is necessarily taking sides for or against the railroads in cases where the question of national transportation policy arises. Rather, what the Court seems to be looking for is enlightenment from litigants as to what national transportation policy is, and what facts have a bearing on this policy.

If the Court is really concerned with such questions, then we bear it company. If national transportation policy is jeopardized when 53% of the local traffic of a barge line in one commodity is diverted from barge movement, what happens to national transportation policy when 53% (or 75% or 100%) of railroad traffic in one or more commodities in one area or another is diverted from rail to the rivers or to the highways? Is railroad service dispensable, and is barge or truck service indispensible—to the nation's welfare and safety?

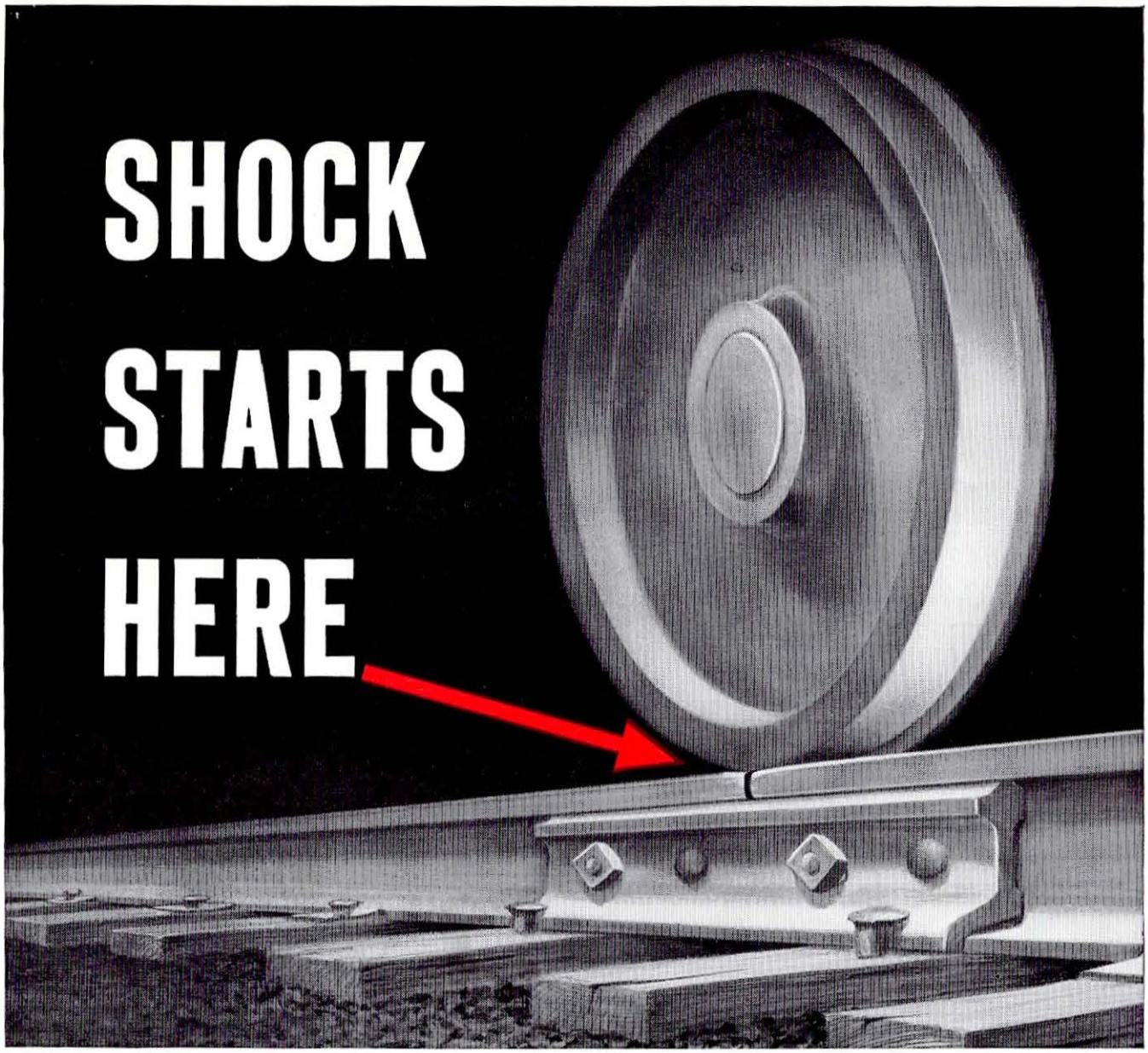
## Is nation's transport bill too big?

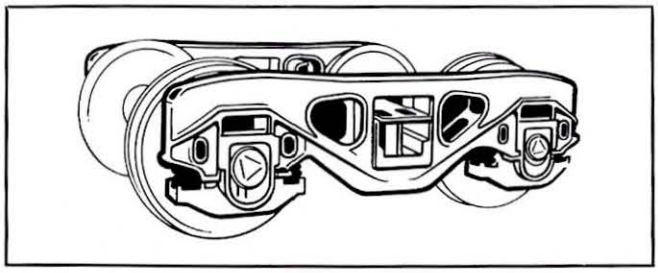
One of the noteworthy economic characteristics of railroad service is (usually) its ability to haul greatly increased traffic at much less than proportionate increase in expense. Does it decrease or increase the total cost of transportation to the nation when large tonnages of traffic are diverted from railroads to competing methods of transportation? Evidence is available which, competently analyzed, would answer such questions as this.

The ICC is obliged by law to "foster sound economic conditions in transportation." Meantime, the only instrument it is given with which to produce this result is its power to regulate railroad rates. It seems obvious logically that, under the law as it stands, the Commission should be obliged to allow railroads to make whatever rates they may need to capture the traffic, whenever they can show that they can do the job more economically than their rivals.

The simple way to put an end to economic chaos and endless litigation in transportation is to deregulate rates—especially on bulk commodities. But corrective legislation is coming along mighty slowly. As long as the only presently available remedy lies with the courts, it would be interesting to see what the result would be if the basic facts of contemporary transportation economics were fully presented in litigation. Such evidence, if skillfully marshalled, would serve equally well to enlighten the judges and to present to "the court of public opinion."

# SHOCK STARTS HERE





Vertical and lateral impacts originate at the wheel. The XL-70 High Speed Truck is designed with separate journal boxes, providing cushioning at the wheel and axle for both types of shock. And road shock is absorbed and controlled by friction elements at each journal box. Further, the bolster and sideframe connection is designed to maintain squareness of the truck and still provide rotational freedom of the truck frames in relation to each other and the bolster. The combination of these and other features provides a truck that offers exceptionally good riding qualities, long service life, and low maintenance costs.

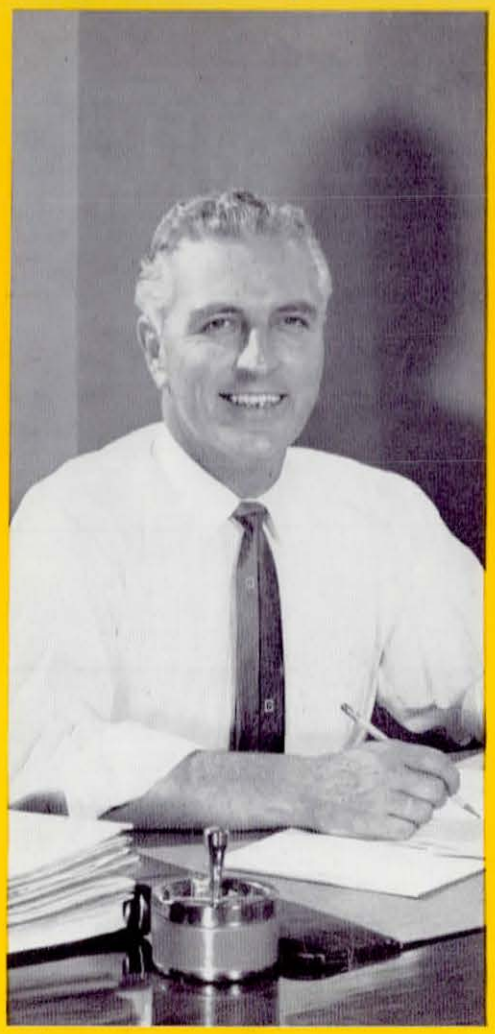
The XL-70 can be furnished for use either with A.A.R. type roller bearings or A.A.R. standard wedge and bearings. It is the result of years of development and service background . . . *a superior truck to meet the future requirements of progressive railroad operations.*

**Write McCormick Building, 332 S. Michigan Avenue, Chicago, Illinois 60604 for bulletin covering service performance.**

NEW YORK • CHICAGO • BOSTON • PHILADELPHIA
SAN FRANCISCO • ST. LOUIS • WORKS: DEPEW, N.Y.
IN CANADA: ADANAC SUPPLIES, LTD., MONTREAL

SYMINGTON
WAYNE
RAILROAD EQUIPMENT

**This is Charles Blake. He's the general manager of his company. He cut costs by introducing automated production. He's a vice-president.**



**This is Henry Hallowell. He's their comptroller. He introduced electronic data processing and saved the company a great deal of money. He's a V.P. too.**

**This could be the next V.P. He's the man who saved the company big money, by using a railroad's Stow 'n Go warehousing service.**

More and more of the nation's leading shippers are being confronted with warehousing and physical handling problems during their peak production periods. Alert railroads can provide the answer to these problems with the revolutionary Strick Stow'n Go mobile warehousing system.

High cube Stow'n Go containers are loaded at the end of a production line. Then they're locked, and parked anywhere on their own four legs . . . after the bogie has been removed! Nothing can top this for inexpensive warehousing because there is no further physical in-and-out of the warehouse handling. When the goods are ready to ship . . . slide a bogie under the Stow'n Go container and off it goes over the highway as a trailer . . . over the rails TOFC or Flexi-Van . . . or as a container on board ship.

Railroads that offer shippers Stow'n Go warehousing service can penetrate many untapped areas for profitable new freight business.
WRITE FOR FREE TRANSPORTATION BOOK.

STRICK

STRICK: U.S. Highway #1, Fairless Hills, Pa. • Chicago • Charlotte • Los Angeles
**DEVELOPERS AND MANUFACTURERS OF THE FINEST TRANSPORTATION EQUIPMENT**